Thaan Vuzha Nilam Tharisu: the land without a farmer becomes barren

Other

Thaan Vuzha Nilam Tharisu

The Land Without a Farmer Becomes Barren

Policies that Work for Sustainable Agriculture and Rural Livelihoods in Virudhunagar District, Tamilnadu

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Dedication

This report is dedicated to the memory of Pondichamy Naicker of Kethinaickenpatti, and to the example of Dhanuskodi of Errampatti. Both have been inspirations to SPEECH and to those who live around them.

Acknowledgements

We would like to acknowledge the assistance of the following parties, without which we would not have achieved what we have.

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Oxfam on community organisation and spreading PRA techniques

Sida on watershed development and the PRA resource centre

Christian Aid on Gender and Development

CCFC on child labour rehabilitation

DANIDA on comprehensive watershed development

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Preface: An Invitation to Get What You Want from this Report

A research report like this serves several purposes. Firstly it serves as a culmination of the long learning process of preparing for and carrying out a research project. For the research team, it is a milestone and while hopefully not the last it is an important one. For IIED and the donors who've funded the work, it's a mark that their investment and support has resulted in something tangible and their first opportunity to share in the full range of what has been going on. Secondly, it is a drawing together of learning. In fact, writing the report is itself is a learning process. Links are made between disparate events and impressions and new understandings emerge as a coherent structure is built to tie everything together. After the day-to-day minutiae of fieldwork, it is a chance to appreciate a bigger picture.

Finally and perhaps most importantly, it's an opportunity to share what was learnt with others who haven't been involved. The potential readership covers a wide range of people: Donors, policymakers, development practitioners, academics, NGOs, the rest of the staff from SPEECH and the subjects of the research themselves. Obviously not all of these people are going to want to read the report in the same way. In order to enable different readers to find what they want quickly, the writing has been structured in such a way as to enable the location of relevant material as quickly as possible.

Each chapter opens with an overview, describing the major themes of that chapter and its subsections together with some idea of the links to other chapters. The idea is to offer a flavour of what we think may be interesting for various types of reader. At the close of each chapter, the key findings are laid out, with reference to the sections that they're based upon. Together with the executive summary, which gives a guide to the various chapters, and the consolidated conclusions, which refer back to the main text, we hope it is possible to find what you want and perhaps be surprised by things you didn't set out to see. Whether you read this report forwards or backwards, skim it or examine sections in depth, we hope you find value in it. We extend an invitation to share what we have learnt during the research, and to form new understandings of your own.

Executive Summary

This report forms a part of the international research project on policy and sustainable agriculture, Policies that Work for Sustainable Agriculture and Regenerated Rural Economies, co-ordinated by the International Institute for Environment and Development. (§1.1) The report details the findings of one of the constituent studies, a project undertaken by an Indian NGO, the Society for People's Education and Economic Change (§1.2). The importance of this project is that it concentrated on rainfed rather than irrigated agriculture – i.e. the sharp end of rural development in India, and that the focus was very much on the micro-level, looking at policy as seen from the ground. One of the recurring themes throughout the research was the importance of appreciating people as individuals, and in this spirit some of the personal qualities of the research team are shared. (§1.3)

The research covers events in sites in the Virudhunagar district of Tamilnadu: Tiruchuli Panchayat Union and the Villur chain of tanks. (§2.1) This is an essentially rural area, where the need for sustainable forms of agriculture and rural livelihoods is clear. (§2.2) The political landscape is fractured and complex (§2.3), and the officials with the responsibility of implementing policy face significant obstacles and disincentives in doing so in response to the needs of local communities. (§2.4)

The research aims (§3.1) were addressed through a research method that moved through a number of interlocking activities. (Fig. 3.1) Creating a map of the area provided valuable background information for the research, as well as creating opportunities to work with farmers and local officials. (§3.2) The local significance of sustainable agriculture was investigated through a set of focus group meetings, interviews and workshops. (§3.3, §3.4) A particularly helpful way of representing the complex set of relationships and associations that emerged was the use of web diagrams, which display the links between concepts in two dimensions. (§3.3) During the writing phase, it was realised that another SPEECH project, the Tank Systems Study, had much to offer as a case study where links between sustainable agriculture and policy could be made. (§3.5, §3.6)

The lives of farmers depend on agriculture in numerous ways. Interviews with them established a complex picture of interactions between social, physical and economic spheres. (§4.1) This holistic idea of agriculture is encapsulated in the local concept of good farming ('nalla uzhavadai'), which corresponds well to sustainable agriculture. (§4.2) While not all farmers practice this, those that do can be considered islands of success of sustainable agriculture. Interviews with such farmers no clear positive link with government policy as expressed through its programmes and the success of the farmers in practising sustainable agriculture. (§4.3) This led to a re-evaluation of policy in a much wider sense than had initially been adopted (§4.4), and to the exploration of other types of 'islands of success'. (§5, §6)

A set of three crop case studies was constructed (§5.1, §5.2, §5.3) from the farmer and other stakeholders' interviews. These are all local crops that have roles within local sustainable agriculture and rural livelihoods, but fall through the cracks in the extension system, one way or another. This led to the conclusion that in order for policy makers to operate effectively through the extension system, a two-way learning process is necessary. (§5)

The final case study of success in sustainable agriculture is based upon a research and implementation programme that SPEECH carried out on behalf of the EC and the Tamilnadu Department of Public Works, the Tank Systems Study. The initial phase was a set of PRA exercises in the Villur chain of tanks, to assess the social dimension of a proposed rehabilitation programme. (§6.1) SPEECH later became involved in the implementation programme too; mobilising the villagers to form water users' associations to carry out the subcontracting involved in the rehabilitation work. (§6.2) The mobilisation programme culminated in a rally, which had an unforeseen effect on the officials that attended, leading to significant changes in the policy environment. (§6.3) As well as the benefits of the project to agriculture, there have been changes to the relationships between officials and the villagers and two specific policy changes. (§6.4)

Building on SPEECH's experience of the tank systems study and of development work in Virudhunagar over the last decade, a model of policy influencing based upon relationship building was synthesised. (§7.1) An analysis was also made of how to gain access to the top echelons of government systems (§7.2) and of the ethical basis under which SPEECH operates. (§7.3)

Based upon the research, it is possible to conclude that although there are many distortions that affect policy, it is possible to work around them, and close the gaps between the world of policy and the world of the farmers. (§8.1). Based upon these conclusions and making use of the lessons of the research, SPEECH has undertaken a follow-on project within Tiruchuli Panchayat Union. This aims to bring various stakeholders together to create a book about the union in such a way that villagers, officials, farmers and development actors stand to benefit. (§8.2)

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Glossary of Terms and Acronyms

Term	**Explanation**
CBO	Community Based Organisation
CE	Chief Engineer
Crore	Ten million (10^7)
Dalit	Dalit is the name used for the community that was formerly known as the untouchables.
DfID	Department for International Development
EC	European Commission
IIED	International Institute for Environment and Development
Lahk	Hundred thousand (10^5)
Nalla Uzhavadai	Good farming – Tamil
Needitha/Nilaitha Vivasayam	Sustainable agriculture – Tamil
NSDP	Net State Domestic Product
NGO	Non-government organisation
Panchayat	The smallest unit of government in India
Panchayat Union	The next tier of government up from Panchayat, also known as a Development Block
PRA	Participatory Rural Appraisal
PTW	Policies that Work
PWD	Public Works Department
Sanga	Community Forum
SARL	Sustainable Agriculture and Rural Livelihoods
SPEECH	Society for People's Education and Economic Change
Union	See *Panchayat Union*

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§1 Introduction

Overview: Who and why

Two of the major themes arising from this report are the importance of taking a wider view, and the crucial nature of personal relationships and qualities. Therefore it seems appropriate to apply these principles to the report itself; thus the aim of this chapter is to explain the environment within which this research took place, and to identify the actors involved. The first such environment is the overall Policies that Work project, of which this work is just one component. (§1.1). Another is the institutional environment, SPEECH, the organisation that took on the task of implementing the research (§1.2). Finally, there's a more personal type of environment. This project was the result of the work of a team of individuals, all with their own strengths and interest. It is not possible to give more than a feel for the range of expertise and personal qualities that were brought to bear on understanding sustainable agriculture and the surrounding policy framework in the research area, but nonetheless the research team is presented here too. (§1.3)

1.1 Policies that Work for Sustainable Agriculture and Regenerated Rural Economies

Policies that Work for Sustainable Agriculture and Regenerated Rural Economies is an international research project operating in 10 countries. It was conceived and is being co-ordinated by the Sustainable Agriculture and Rural Livelihoods (SARL) programme of IIED (International Institute for Environment and Development). In each of the countries, one or more researchers drawn from NGOs (non-government organisations), universities and government agencies conducted in-depth studies of the sustainable agriculture and its relationship to policy.

Sustainable agriculture was defined in a broader sense than just specific techniques or technologies chosen for their degree of environmental impact; also including an understanding of the sustainability of the economic and social aspects of agriculture. There are many examples around the world of times and places where sustainable agriculture can be seen working in practice. The rationale of the *Policies that Work* (PTW) project is to study a variety of these "Islands of Success" and to try to understand their policy environment. In other words, to understand the agricultural and non-agricultural policies that affect sustainable agriculture, the processes by which they are formulated and the distortions as they are implemented. The emphasis was on finding "policy that works", i.e. that is enabling, rather than policy that doesn't. As well as analytical research, there is an emphasis on understanding policy as a basis for influencing or changing policy.

IIED's initial task was to identify potential collaborators from amongst their network of partners around the world. Those selected were then invited to send representatives to an international workshop in Easthampstead, UK in 1996. The collaborators were chosen to give a range of perspectives on the research, from different countries and at different scales of operation. Those attending the workshop were presented with a preliminary literature review and suggestions for methodology, to form the basis of discussions. After the workshop, those attending were invited to write proposals, laying out a programme of research suitable for their own context, which would fit in with the overall project. Amongst those invited to do this was an Indian NGO, the Society for People's Education and Economic Change (SPEECH). SPEECH's proposal was submitted to a national workshop of the Indian research teams in Bangalore, where it was extremely well received. SPEECH's research project was one of three set up in India. Its focus was on policy and sustainable agriculture at the local level within the Virudhunagar District in Tamilnadu, where SPEECH operates. The other two Indian case studies looked at the situation at the state and national levels. In the rest of Asia, projects were also formed in Pakistan and Thailand, while other continents were represented by work in Bolivia, Brazil, Kenya, Senegal, South Africa, Australia and the UK. SPEECH's research is an important component of the overall research, as it is the most grassroots oriented, giving a 'view from the ground' on the research issues.

1.2 SPEECH

SPEECH is a development NGO that began its mission, to serve the rural communities of India, in 1987. It aims to address social imbalances and improve human potentials, thereby facilitating sustainable livelihood systems. The founders of SPEECH initially chose the area around Tiruchuli, a small town in the district of Virudhunagar (See §2.1), because of the high rates of illiteracy and child mortality there and because of its recognised status as a backward area. When SPEECH first began its work, the local government system of Panchayats had been dissolved by the central government and many communities were without official leadership and helpless to influence the decisions that were made about them.

The main theme of SPEECH's work has been helping the underprivileged rural population to organise themselves to cope with their changing needs and to enhance their collective bargaining power. Initially SPEECH began by initiating non-

formal education projects in its target villages. The confidence built during this period enabled it to help local people organise around the concept of *Sangas* or community forums. A local system of *sangas* federated into clusters by geographical areas was developed and this meant that local people were able to lobby the authorities for provision of basic services such as road facilities and access to drinking water. There are farmer *sangas*, women's *sangas*, rural artisan's associations, water users associations, watershed participants associations and so on. SPEECH works with the *sangas* through a phased approach, where *sanga* leaders are offered training that allows them to make their own initiatives. The development of local leadership has enabled the *sangas* to produce sustainable solutions to local development problems.

Two major influences on SPEECH's development have been PRA (Participatory Rural Appraisal) and Watershed Management, both of which have been important throughout the Indian NGO sector. The NGO was quick to appreciate the potential of PRA and took its practice and principles to the centre of everything it does. This has led to its recognition as a centre of excellence in PRA by officials, other NGOs, academics and grassroots level workers. SPEECH has been eager to share the lessons it has learnt, and to date has conducted more than 100 PRA training programmes, all of which have been oversubscribed. Training clients have included government departments from four states as well as many national and international organisations.

The involvement with watershed management was important because it led to the introduction of a more sectorial approach to development. SPEECH's initial work had given it an understanding of the local dynamics, power centres and political sensitivities as well as a lot of information on issues like wage levels, the status of women, livelihoods, drought coping mechanisms and natural resource management strategies. It began to work on key areas of intervention such as natural resource management, gender imbalances, savings and credit, skills training, economic development programs, animal husbandry and the rehabilitation of child labourers. When designing programmes, client and stakeholder participation and decision making is a prime process.

The philosophy of SPEECH is based on the belief that at the local level, the development process cannot be provided from the outside, but should be driven from within. Outside organisations should take the role of facilitators and catalysts, enabling people to realise and release their own potential to help themselves. At the same time SPEECH is aware of the limitations of its own resources and believes that it should work alongside the mainline system, rather than replacing it. It has piloted interventions that address district, state and national priorities, and pursues a two-way development process, where transformation at the top is pursued to reflect changes being generated at the bottom.

Today Speech primarily works in two geographical areas. The first is the original target villages, concentrated in seven Panchayats in the north of the Tiruchuli Panchayat Union, where the emphasis is on the development of entire communities. The second is in the town of Sivakasi about 50 km away, where the emphasis is on work with children. It is currently involved in expanding its physical area of work, as well as developing its capacity as a PRA training and resource centre and for conducting participatory research.

As well as its own research and development, such as the pilot livelihood security card[1], SPEECH is developing experience of collaborative research. Examples include work on eye care with the London school of Hygiene and Tropical Medicine, the PTW project with IIED and an irrigation tank study sponsored by the state Public Works Department and WS Atkins - an engineering consultancy. These research projects are proving a healthy springboard for this expansion process mentioned above, as they often involve working in areas outside of SPEECH's traditional footprint.

1.3 The Research Team

The team comes from a range of social and educational backgrounds, but all have strong rural roots. The five core team members were:

- Mr Rengasamy, who teaches social work at the postgraduate level at Madurai Institute of Social Sciences. He is the chairman of SPEECH, an original thinker, who drafted the initial project proposal. Rengasamy has an interdisciplinary qualitative research background, and is also a trained Transcendental Meditation teacher, describing himself as an open-minded seeker.
- Mr P Balamurrigan, a trained social worker, who brought his experience of both PRA and conventional research methods. He is a dedicated and hard working member of SPEECH, who understands computers and can use Office '97.

[1] The security card scheme is essentially a savings and credit scheme, with the additional element of a 'credit card', which can be used in nominated shops and supply stores.

- Mr Rajakili, a respected and popular local figure. He came from a wealthy background, but his family lost their wealth after his graduation giving him insight into the sufferings of the farmers. He is a good conversationalist, who has an understanding of and good contacts with the local traders. He also writes well in Tamil.
- Mr M Karunanidhi, a senior SPEECH staff member, who comes from a Dalit background. He acted as 'gatekeeper' or 'point' for the team, establishing relationships with communities that had not previously had contact with SPEECH.
- Mr K. Rajadurai, a senior SPEECH staff member who still lives in his own village, contributed an awareness of development trends in the area, from his experience with watershed and soil management programmes. He did much of the liaison work with local officials.

A further pool of experienced PRA practitioners[2] were also available as needed, including Parvatha, Gurija Sivakami, Pitchai, Alagupandi and J.S. Nirmal Raja. These people provided a strong backbone in the field whenever needed. Additional support was available from Mr Erskine, the project director and secretary of SPEECH, who attended the original IIED workshop, Mr Rajendraprasad, the SPEECH project co-ordinator and Mr John Devavaram, who was the initial point of contact with IIED. All three are founder members of SPEECH, widely travelled postgraduates who took an active interest in the project.

Finally, Chris High of the Open University in the UK, a visiting Ph.D. student, was able to assist with writing up the research and reframing the Tank Systems study to fit in with Policies that Work. His research is in learning systems in sustainable development, and he has been working in London with IIED and in Tamilnadu with SPEECH to explore practical ways to apply systems theory to the work of the two organisations.

[2] There is a joke in SPEECH that the only member of staff with no experience of PRA is the cook.

§2 Sustainable Agriculture in Virudhunagar District

Overview: The Context of the Research

Whereas the introductory chapter was about the project environment – the institutional and social background to the report (§1), this chapter is more to do with the subject of the research. It sets the scene, providing some detail about the area and its institutions to inform the sections that follow. The geographical context is dealt with first (§2.1) with a special emphasis on the consequences of the climate and demographics for agriculture. This leads naturally to an explanation of the local need for sustainable forms of agriculture and rural livelihoods. (§2.2) Finally, there is a treatment of the political and institutional context of the research (§2.3). This is by necessity a sketch, and intended purely to play a supporting role to later chapters, rather than delving fully into the intricacies of Indian government structures

2.1 The District

The two field sites for the research mostly lie in the Virudhunagar District (also known as Kamarajar District) in the Southern Indian state of Tamilnadu:

1. The first was the Tiruchuli Panchayat Union, an administrative unit of about 75 000 people (Box 1). Tiruchuli, the town the Union takes its name from, is approximately 25km east of Virudhunagar, the administrative centre of the district and about 50 km south of the city of Madurai.
2. The second site was the 35km long Villur chain of tanks. Most of the villages concerned lie within the district, stretching north from Virudhunagar, into the neighbouring district of Madurai.

Tamilnadu has a population of over 55 million (5.5 crore) and a surface area of 130 000 km^2 (1.3 lahk km^2). The vast majority of the people are Dravidian[3] and 85% are Tamil speakers. Although Tamilnadu is one the most industrialised Indian states and only 25% of the NSDP (Net State Domestic Product) derives from agriculture, 60% of the working population are directly involved in raising crops and directly or indirectly it is the main source of livelihood for the majority of the population. Nearly 45% of the total land area is under active cultivation. The state government is concerned to raise food production to feed its population and there is an understanding that the most scope for improvement lies in the rainfed, rather than the irrigated areas. About 22% of the state's population live in areas that have been identified as drought prone by the national irrigation commission. Many other areas still face active distress when the rains fail.

Although the state is quite hilly, with the Nilgiri hills in the north, the Anamalai hills in the south and the Western Ghats in the west, in the centre and east lie the lowland plains and the coastal area. Virudhunagar district is part of the southern dry plains of Tamilnadu, an area that is prone to frequent droughts. The area is in the rain shadow of the Western Ghats and the climate is typical of the semi-arid tropics, with temperatures ranging between 18°C and 40°C. The mean annual rainfall is 876mm, received in an average of 43 days. The SW monsoon accounts for a mean rainfall of 213 mm and the NE monsoon for 514 mm, with only 149 mm falling during the remaining dry period. There is high variation year on year. As the NE monsoons are more dependable, cropping is usually co-ordinated with their onset sometime in October. The NE monsoon period in October and November is the only time of the year when more water falls as rain than is evaporated. Nearly all agriculture in the area is rain-fed, as there are no major river basins to base irrigation schemes upon. As a result, yields are highly variable.

The district economy is essentially agrarian, with around 45% of the land area under cultivation. Most of the landholdings are small - 88% of the landholdings being under 2 ha. The main industries are safety match and firework production, litho printing, offset printing, dhall milling, textile milling and the manufacture of tin containers. The district is infamous for the use of child labour in the match industry in towns like Sivakasi. The prevalence of match factories is a direct result of the district's status as a distressed area[4], based on its drought-prone nature. The combination of cheap rural labour and subsidies has proven a powerful draw to the industrialists.

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[3] The Dravidian people are a linguistic/cultural group found predominantly in the Southern states of India. About 25% of India's total population speak Dravidian languages.

[4] Distressed areas are identified by the central government and once designated, qualify for special treatment from many government agencies, including loans and subsidies for industry.

Figure 2.1 Map of Tamilnadu, showing the position of Virudhunagar District

Box 1. A profile of Tiruchuli Panchayat Union

Tiruchuli Panchayat Union's population is 74, 234 people (1991 census) living on 42, 785 ha of land. It is regarded as rural, and 85% of employment is within the agricultural sector. There is a small amount of light industry, but the total workforce is less than 1% of the working population. As there are no perennial water sources, agriculture depends mainly upon seasonal rainfall and irrigation from tanks and wells. Irrigation covers only 25% of the area under cultivation, and most tanks are small and poorly maintained.

The average wage fluctuates from season to season. Major off seasonal employment depends on charcoal burning, cattle grazing of sharing tenant system and migration to other districts in search of employment. Migration is dominantly seasonal and usually occurs during the fallow season from the beginning of February to end of May.

2.2 Why Sustainable Agriculture?

The arguments for sustainable agriculture locally seem so compelling that to some of the team members the question, *"Why sustainable agriculture?"* hardly seems worth asking. The economic argument is clear: In the state government's own estimation, there is an impending shortfall in food production and the main scope for raising production levels lies in the

dryland areas. Nationally, irrigated land accounts for around 35% of the land under cultivation and it is estimated that this will rise to around 50% in the next two decades (Ketyal *et. al.*, 1997). Rainfed agriculture, with its variable yields, produces only 25% - 50% of the average yields achieved under irrigation, but the paradox is that scientists claim they have the means to raise dryland yields far above their present levels. Sustainable agriculture, with its focus on higher yields from locally available inputs and its emphasis on combining the best of traditional and modern practices with an eye on the social context of agricultural practice has much to offer in this regard (Pretty, 1995). The implications in terms of food security and savings on foreign exchange are clear

In 1991, almost 80% of the rural population of India were almost exclusively dependent on agriculture as a source of income (ActionAid India, 1996). For landed and landless alike, the need for rural employment and livelihoods is not going to go away. While for some the move to the city is successful, for many others migration results in an exchange of rural poverty for urban poverty. In the country, even the landless can have employment if the local economy can sustain itself. For those with a small area of land, the potential income is better than many menial industrial jobs. The main problem is that without an assured source of water or techniques to ameliorate dry conditions, any investment in inputs and labour is a gamble over an extended period. The factory job on the other hand pays daily wages. Locally sustainable forms of agriculture are those that not only assure a reasonable income, but do so without undue risk.

Maintaining an adequate resource base not only requires avoiding damage to the land, but also maintaining the relationship between the people and the soil. There is little benefit in looking after the earth merely because it provides the physical space for existence. Where the soil is clearly recognisable as the sustaining ground upon which the whole of society rests, there is a stake in sustaining it in return. When the people become alienated from the land it becomes harder for individuals to recognise the need for restraint and respect. In turn, the earth sustains local society. When people are able to maintain a connection with their past and their heritage, they enjoy positive psychological benefits that cannot be properly quantified. (See the discussion of soil types in §4.1 for example) Local experience shows that it is agriculture and agriculturally based livelihoods that provide this connection. When industrialists buy up fallow land and build factories on it, they can do immense damage to the environment in a very short space of time and also damage the fabric of life locally.

Finally, there is a feeling locally that wider community loses out when families and individuals migrate. It is often the brightest and the young that go first in a sort of agricultural brain drain. The poor often display a 'coping' intelligence that allows them to adapt to the harshest conditions. However, thriving rather than surviving requires a proactive 'hoping' intelligence. The research shows that when farmers find strategies that allow them to flourish, those around them can benefit in terms of know-how and employment. Community wisdom is not just a matter of tradition and the past, but is also a forward-looking force that relies on the intelligence and dynamism of the individuals who share in the communal identity. Searching for ways to retain the interest and involvement of the innovators is only possible when they remain part of the community, and in the rural areas that means that agriculture must remain a challenging, but not soul-destroying way of life, which compares well to the alternatives.

2.3 The Political Landscape

The political background for this research is the complexity of the layers of Indian government. At independence, the new nation inherited a heterogeneous set of territories and institutions, and the story of the last 50 years has been one of constant adjustment, tweaking and re-organisation. For example, the amendment to the constitution in 1993 concerning the Panchayati Raj (local government) was the 73rd amendment to the constitution since it was adopted in 1950. Virudhunagar[5] district itself only came into existence during the last 20 years, when the much larger Ramnad District was divided into three. In a hangover from colonial times, the previous district headquarters had not even been in the district itself, but in Madurai. The smaller size of the new district and the re-location of its headquarters to Virudhunagar have been a positive change, bringing the district government closer to the people

In most of Tamilnadu, administrative responsibility at the local level is divided up in different ways. The hierarchy of administrative units is shown in Figure 2.2. The smallest administrative units for development, the Village Panchayats, are different to the smallest units distinguished for revenue collection, the Revenue Villages. This division is also maintained in the next layer up, and it is only at the third tier – the district level - that the boundaries between administrative units are guaranteed to coincide. The revenue units date back to the British administration, whereas the formal panchayat system has

[5] The name of the district has only very recently become Virudhunagar. Previously it was known as Kamarajar District, but this led to sustained protest by high caste residents at living in a district named after a Dalit leader.

developed since independence.[6] To further complicate matters, the revenue units are based on territory, with well-established and well-mapped geographical boundaries while the development units are based on population centres such as villages or hamlets.

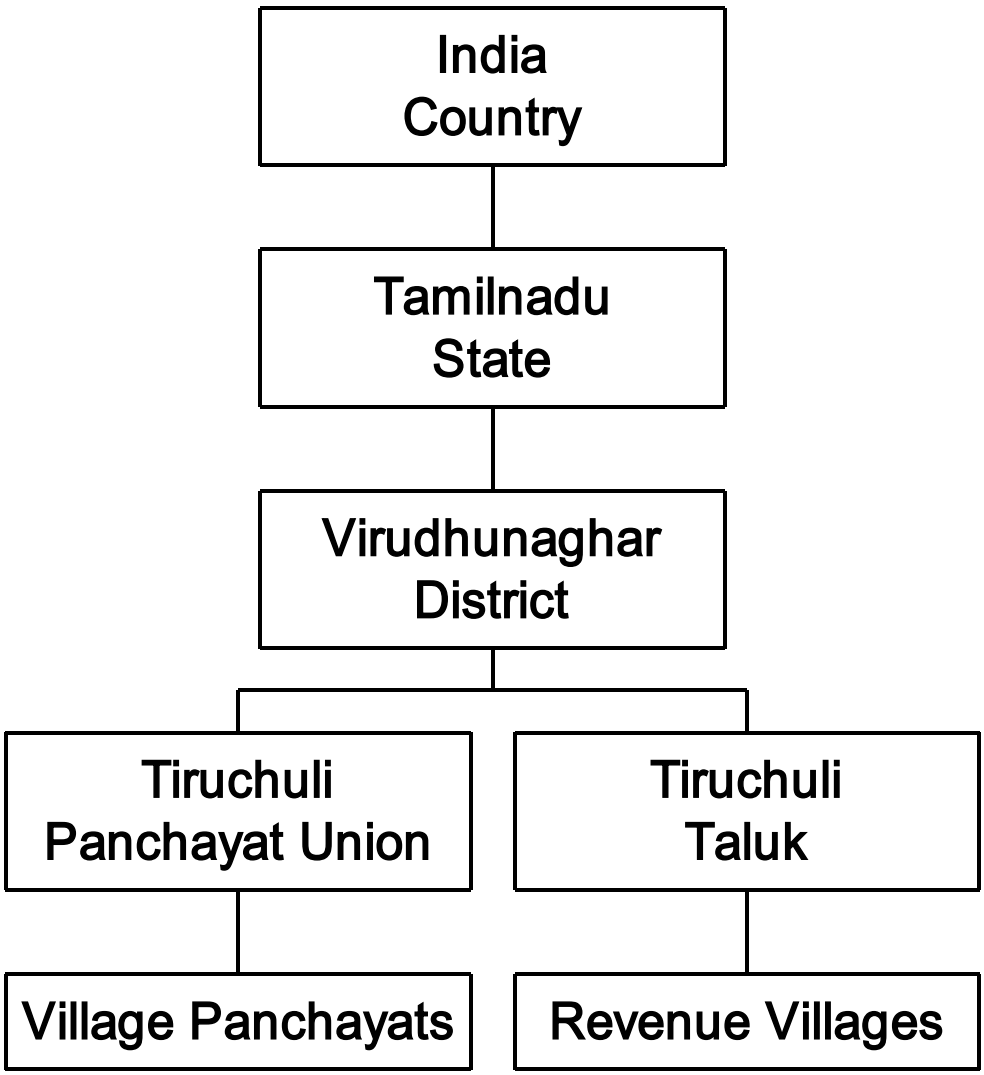

Figure 2.2 Administrative Units

As well as revenue collection, the revenue administration is responsible for keeping records on landholding and for collecting data such as the census. The development administration on the other hand is responsible for providing most local services, through a set of extension officers at the Panchayat Union level. The majority of the line officials are under the control of the Union, such as the extension officers responsible for animal husbandry, women's development, etc. However, some departments such as education and agriculture, have their own structures and effectively fall under the authority of their own departmental hierarchies.

[6] The concept on the other hand is based on the traditional structures at the local level that predated the British.

The Panchayat system operates as the constituencies for local government. In each Village Panchayat, a Panchayat Council is elected, made up of ward councillors and a president. One or more Village Panchayats (depending on population) also elect a union councillor, and several Village Panchayats will between them directly elect a district councillor. The Union Panchayats and District Panchayats are made up of the respective councillors, who elect a president from amongst their number.

2.4 The role of officials in policy implementation

Officials in the extension services face enormous difficulties in carrying out their duties in a way that benefits the local people. For example, most officials are re-posted every three years and are not usually sent to work in their home districts until late in their careers. This is meant to cut down on collusion between officials and people in the communities they work in due to family ties or longstanding friendships. The problem is that a new official has a limited amount of time to become familiar with their 'patch', before they're whisked off somewhere else. In fact it is possible to do well in the job without being of much benefit at all, and anecdotal evidence indicates that is possible to carry out official duties in a completely corrupt manner for years on end without getting caught or successfully challenged.

The essential ingredients of success as a government official are fulfilling targets and not becoming vulnerable to more powerful people in the system. This target approach can lead to definite distortions, when the actual policy target is hard to measure and a proxy is used. For example, when loans to farmers are considered, the targets are construed not in terms of benefit to the farmer and the community, which would be hard to measure on a case by case basis. Instead the targets are set up in terms of total amount lent, which at its worst induces corruption and at its best does nothing to encourage quality control. Other targets are dubious proxies, such as amount of money spent on promotions.

Even if one does fall foul of someone powerful, one's job is not threatened unless there is documentary evidence of wrongdoing or inefficiency. The worst that can happen is being transferred to a 'punishment posting'; that is unpleasant or poorly resourced positions. The need to prevent any possible evidence being filed against one leads to an attitude of 'safety first'. That is not taking any risks, and never taking actions that leave an audit trail unless that trail includes clear orders from a superior to do so. The result is a system that looks inwards and is slow to react to the concerns of the community it ostensibly serves. There is no built-in feedback from the community, and their concerns have to be fed up through the political system, before they can trickle down the administrative system with all the changes and distortions that can take place along the way, or through informal and unofficial channels.

K2 Key findings

K2.1 The findings of research are likely to have implications for a much wider area than Virudhunagar.

One of the central challenges facing both the state and the nation is producing more food, particularly in the rainfed areas. (§2.1 & §2.2) Sustainable agriculture addresses issues that recur throughout rural India, such as risk of crop failure, competing employment and so on (§2.2) The complexity of the administrative system (§2.3) and challenge of working from within (§2.4) are the same throughout the state and similar situations arise in many other areas. Therefore findings to do with policy and sustainable agriculture locally are likely to apply to a much wider sphere.

K2.2 Sustainable agriculture is necessary in Virudhunagar, in both economic and social terms

Sustainable agriculture and rural livelihoods offer increased food security and combat the forces driving rural migration. (§2.2) This in turn sustains rural society that in part is built on the rhythms of the land (§4.1), and helps to retain the young and the gifted within the community. (§2.2)

K2.3 Local government and the implementation of policy is complex and suffers from distortions

There are different geographical units for the delivery of services and for the collection of revenue and data on the population. There are over 140 programmes relevant to agriculture. (§4.4) Responsibility for delivering programmes is carved up among a range of agencies operating at different levels. (§2.3, e.g. §5.2) Government officials are constrained by forces that stifle initiative and concentrate their attention on targets and internal politics, rather than the needs of those they ostensibly serve. (§2.4)

§3 Methodology and Method

Overview: A Learning Process

Rather than providing a detailed description of the research, this chapter summarises the methodology behind the methods employed.[7] The idea is firstly to clarify the route by which the team came to the data that is presented in the following chapters and secondly to make available to other practitioners and researchers some of the methodological discoveries made during the research process. While most of the methods used were fairly standard, two in particular stood out as particularly powerful: Making a map of the research locale (§3.2) which provided a means for establishing good relationships with farmers and extension officials alike, and the drawing of web diagrams (§3.3). Throughout the PTW research, a learning approach was taken, which resulted in several surprises and changes in plan. (§3.6)

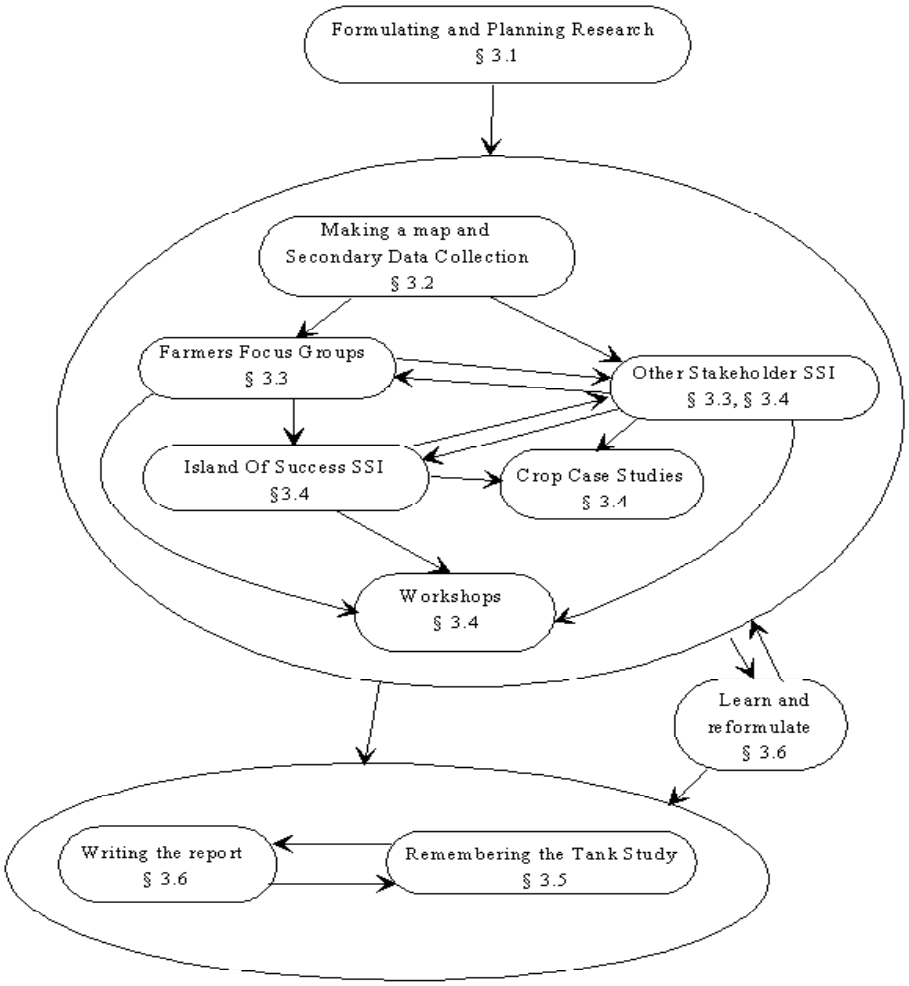

Figure 3.1 Road map of the research method

[7] Methodology is the study/principles (*logos* in Greek) of method.

The structure of the research is explained in Figure 3.1 above, showing the various parts of the project and their relationships to one another with references to the relevant subsections. An arrow here indicates where a relationship 'informs' something - so for example the farmers' focus group work and the semi-structured interviews (SSI) with the other stakeholders both provided information and inspiration for one another to proceed.

3.1 Project Aims

SPEECH had two sets of intentions while undertaking the PTW research. The first set is explicitly to do with the overall PTW research aims (§1.1):

- To evolve criteria or indices for sustainable agriculture which are contextually relevant to local rainfed farming systems.
- To identify "Islands of Success" of sustainable agriculture based on the criteria that have been developed and to understand the various factors (policy and non-policy) that contribute towards the practice of sustainable agriculture.
- To promote possible modifications to policies and programmes for effective replication of the "Islands of Success", through feeding the research findings back to the various stakeholders at the union/district level.

The second strand had to do with SPEECH's own wider agenda. The idea was to use the research process to contribute towards the organisation's other concerns:

- To enable its entire staff to understand and appreciate the need and importance of sustainable agriculture and its relevance to SPEECH's working area.
- To further strengthen its relationship with local communities and government departments.
- To extend its area of operation and intervention to the whole of the union.

3.2 Making a Map

Maps are widely used as teaching and learning tools, and in PRA making maps is a significant process. For example, drawing social and resource maps with people is used as an interactive tool to facilitate their participation and to improve the attentiveness of all the actors concerned. Map making provides benefits for both researchers and local people and can create bridges between the two parties by opening up new ways of sharing information. Seeing and learning from the maps create familiarity with the area which provides a good basis for research. They enable people to relate to presentations according to their own abilities and arouse a sense of happiness and identification whenever details of their life (village/town) are mentioned.

With this intention the team wanted to prepare a map or a set of maps (See §4.1) of Tiruchuli Panchayat Union. This involved primary as well as secondary data collection, as the details the team wanted to put in the map were not available in existing maps of the area or from other sources. Using the existing revenue maps[8] of the area, the positions of the 129 settlements (villages/hamlets) within the 40 Village Panchayats were checked in a series of visits throughout the Union. Based on this, the panchayat boundaries were plotted, something which had simply not been done before. Additional data such as infrastructure, soil types, predominant crop varieties, rainfall patterns and the like were collected and added to the map data throughout the research.

For local farmers, the map became an object of curiosity. They were shown the map during the focus group meetings and they were extremely interested to see if their village appeared correctly. Their pleasure at seeing that their settlement was mapped developed into identification with the map and enabled creative discussions with the researchers. This was important, because many of them have strong negative feelings about agriculture and are quite embittered and cynical. The map and the general approach of the team allowed them to break through this. It also gave a useful starting point for discussion, and for illustrating their knowledge.

The greatest impact though, was on the local agricultural officials. When a draft was shown to them during an interview, they immediately asked for personal copies, showing its relevance to their lives. It demonstrated to them that they had something to gain by co-operating, i.e. access to data and understandings that could aid them in their duties. It appeared to impress upon them the professionalism and the seriousness of the research and points that were raised with the officials

[8] i.e. The government maps showing the revenue villages and their boundaries.

using the map had an extra flavour of authenticity. The relationships initiated at this time deepened and became very positive, and extension officials began to visit the SPEECH offices for help with their own responsibilities[9].

For the team itself, the map helped them to get a holistic understanding of the area and a reminder of their responsibilities. The mapping exercise was highly successful in terms of placing the research in its context and as an entry point with both farmers and local officials. Discussion of points with stakeholders using the map changed the relationships between researchers and locals in significant ways. A key lesson is to select tools that create rapport and allow people to locate themselves in the research.

3.3 Indicators and Web Diagrams

During the next phase of the research, the idea was to see whether the concept of sustainable agriculture and rural livelihoods as formulated in the initial PTW workshop made sense in the local scheme of things. This was done through a series of focus group discussions with groups of farmers and interviews with other stakeholders such as extension officers, local traders and bank officials. The data raised from the other groups was used to crosscheck what the farmers were saying and to suggest topics that would be useful to explore. Extensive use was made of PRA methods throughout.

For the purpose of conducting focus group discussion, Tiruchuli Union (40 village panchayats) was divided into eight clusters consisting of five village panchayats each, which is approximately 14-18 villages. In each cluster, a centrally located village/ hamlet was selected with the assumption that due to the central location the villagers might have a fairly good understanding of the surrounding areas. The new union map was helpful in selecting the villages. Some preliminary details concerning the selected villages were obtained from the members of a federation of village associations within SPEECH's existing work area and also through visits to the villages by the team members.

The aim of the focus groups was to get farmers talking about sustainable agriculture and understand what it meant to them. This was truly a learning process and there were several difficulties involving the differences between the farmer's and the researcher's worldviews that needed to be overcome before any progress could be made. The first was the term sustainable agriculture itself, which in literal translation meant very little to local people. It was only when a commonly used local term was found (by one of the farmers) that in practice means much the same thing, that farmers and researchers could begin to compare notes. (See §4.2)

Another problem was facing the despair and cynicism of farmers who have been struggling in difficult circumstances for years. It was necessary to listen to these frustrations, but as they were often unspecified and unfocused, the team began to use slightly provocative questions to help farmers and other participants bring out specific issues. This was possible because the rapport and friendship that was built up with the farmers through techniques such as looking at the map and listening carefully and attentively to what people had to say before asking too many questions. Such an approach is a fine balance, but in this case yielded much useful and specific information on rainfall, soil types, winds, water quality, marketing, inter and intra village dynamics and attitude of the extension staff and other stakeholders - once the farmers were willing to share their knowledge as well as their problems.

A useful method for getting to grips with local perceptions of sustainable agriculture was the standard PRA technique of constructing indicators. Over 35 indicators were constructed during the course of the focus group work, and these were then carefully considered for their practical applicability and acceptability with other farmers, agricultural officers and scientists in the regional research station for rain-fed agriculture. The indicators were refined to a list of the 18 main ones (See fig. 4.2) , and these were used as the basis for choosing the islands of success.

As well as the work on mapping and indicators, a third method was developed during the research. In some of the villages, linkage diagrams were drawn during discussions to show relationships, for example listing various kinds of fertilisers used, or chains of cause and effect. The central feature is the emphasis on relationships, and showing the interconnections between factors. It was when these simple diagrams were consolidated into what were called web diagrams (See fig 3.2 below), that the power of seeing things this way became apparent. These web diagrams combine features of mindmaps (Buzan, 1994) and system dynamics diagrams (Senge, 1993).

While the individual diagrams and reports gave an impression of individual knowledge, what emerged from the web diagrams was an image of the overall understanding of various aspects of agriculture in Tiruchuli. These do not represent the insight of any particular individual, but rather the pooled understandings of how things work. These understandings may

[9] The joke in the Tiruchuli office during last rainy season was that the officials were visiting so regularly that a daily register was needed to check them off as they came in.

be contradictory in places, but their strength is that they're couched in local terms and allow discussion based upon what the farmers know, rather than outsiders. They can also be very revealing about cyclical paths of influence. For example in Fig. 3.2, one can see that income loss leads to the need to take out a loan, which leads to further income loss. Eventually this is likely to result in the farmer giving up agriculture. Such vicious cycles and their counterparts, the virtuous circles, are of considerable interest to people who are interested in understanding local dynamics. They're potentially an aid when looking for places to change things when they are unsatisfactory or support or spread things that work. These web diagrams can quickly become quite complicated (Fig. 3.2 is a fairly simple one), but reveal a wealth of detail that would be much harder to find by trawling through transcripts and research reports.

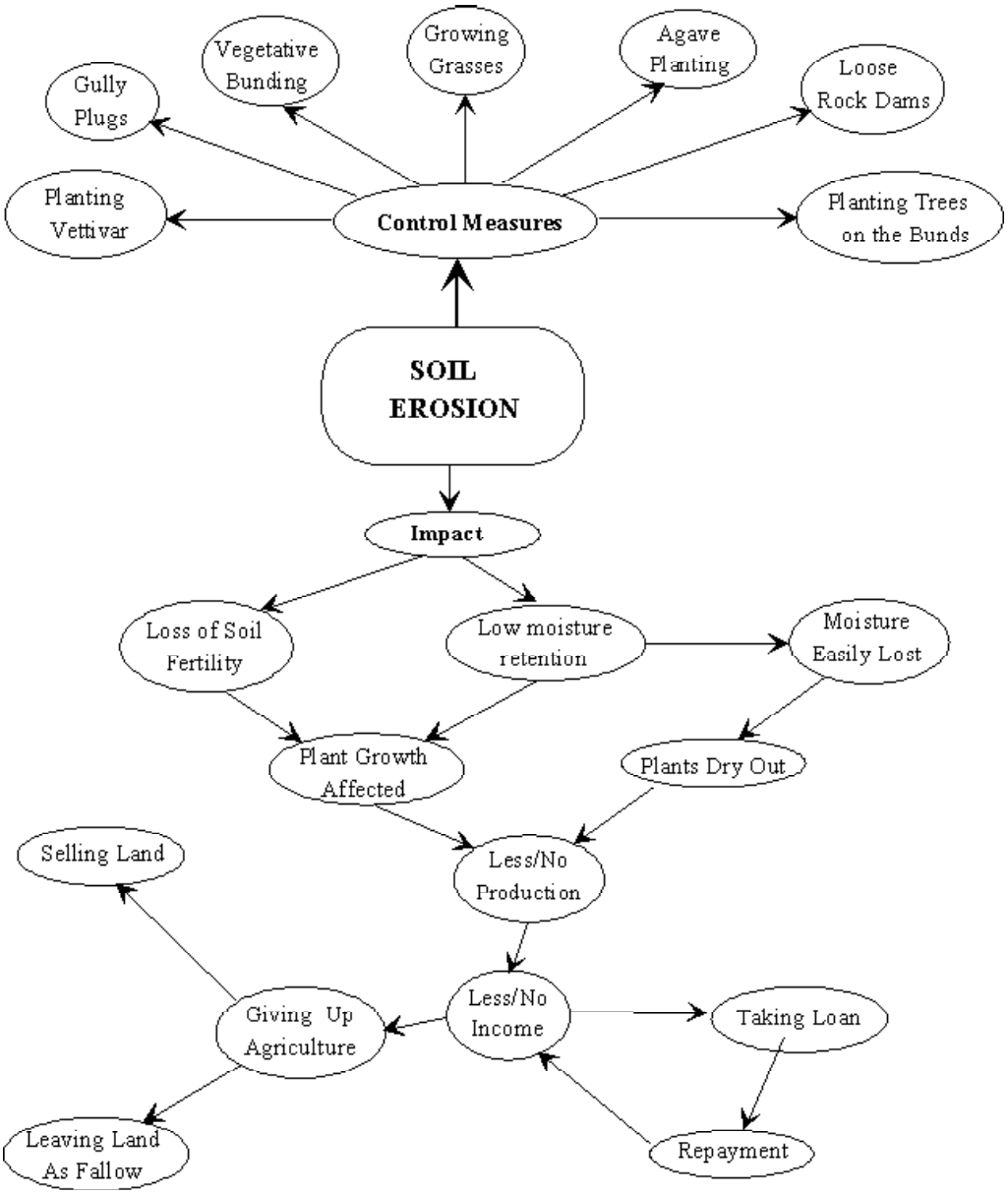

Figure 3.2 An example of a consolidated web diagram – Farmers' perceptions of soil erosion

3.4 Interviewing the Islands of Success and Following the Threads

The next phase of the research was to identify and interview a set of farmers who could be said to be successfully practising sustainable agriculture. In other words, the "Islands of Success" called for by the original research design were individual farmers. Twelve were chosen in consultation with the focus groups and agricultural extension officers, as well as through SPEECH's existing network. The criterion was that the farmers were practitioners of sustainable agriculture. Once the farmers were identified, they were approached to take part in intensive one-to-one semi-structured interviews. These covered topics such as the matches and mismatches between their practice and the indicators for sustainable agriculture, their contact with other stakeholders such as extension workers, traders and so on. Where interesting practices or ideas came out of the interviews, these were followed up in more depth. It was out of such a process that a second type of island of success emerged - the crop case studies (See §5). These were based upon the island of success interviews, along with reference to secondary data and interviews with agricultural officials and researchers.

As this phase of the research was going on, further work was done to understand the role of non-farmer stakeholders in agriculture in Tiruchuli. Traders, seed merchants, bankers, extension workers and so on were interviewed. There was also extensive consultation with academics and government officials outside of the area to understand the general nature of rain-fed agriculture. As with the farmers' focus groups, information gathered from other stakeholders was used to triangulate the data from the farmers interviews and to suggest particular lines of questioning in them.

This blended into the next part of the research programme, which was a series of workshops with various stakeholders, for example with officials from the agriculture department. The series culminated in a two-day workshop entitled *"Tiruchuli 2001"*, to which all stakeholders were invited, held in October 1998. 'Stakeholder' was taken to be a very broad term and included people who had no direct involvement with agriculture, but who were interested in the general development of the Union. The emphasis was to give people a forum to share their concerns and desires and to allow various groups of stakeholders the chance to meet one another outside of their day-to-day interactions.

3.5 Remembering the Tank System Study

After the main body of the PTW research ended and the analysis began, there was a growing realisation that while there were lessons to be learnt about policy constraints by regarding farmers as Islands of Success, the main reasons they were successes were at best only peripherally to do with policy. The reason they were successful was more to do with their moral and personal qualities, rather than a supportive policy framework. A similar message emerged from the crop case studies; there are local products that can be seen as successful, in spite of there being little direct influence from the world of policy. At the same time, it became clear that another SPEECH project, the Tank Systems Study offered a third kind of island of success, where the links between policy and success were much clearer. The challenge became how best to capture the learning from the Tank Study and reframe it for the purpose of PTW.

A series of internal interviews and meetings was held, to try and understand what had happened and what it meant. This wasn't just a static knowledge-gathering exercise, but resulted in significant learning for SPEECH, as it produced an overall picture of the tank study and made some ideas explicit that had only been implicit before. The information gathered was written up and checked with the team again, and then cross-checked with some of the external actors who were also able to fill in some of the details and to ensure that the SPEECH's understanding of what had happened weren't restricted to itself alone. Even so, unlike the previous work, there hasn't been time or opportunity to properly discuss the results with all the other significant stakeholders, and it should be clear that this section of the report (See §6) represents primarily SPEECH's idea of what happened.

While there is therefore a risk of bias, nevertheless the picture that emerged is interesting, and it was decided that it was worth sharing. The model of mediating between different groups and creating opportunity for changes in relationships between various actors that emerged struck a deep chord with aspects of SPEECH's developing practice over the last 12 years. As a result, the experiences of building relationships during the main PTW research and the Tank Study where synthesised with some other examples drawn form SPEECH's history, to provide a general model of the way that the organisation has been able to affect policy, while still remaining true to its roots. (See §7)

3.6 PTW as a Learning Process

One of the clearest things about the PTW research process is that it was adaptive. Rather than a fixed plan for all time, the researcher team formed intentions for what they wanted to do, but then went in with an open, explorative mind set. Some of the things that were initially planned failed to materialise, while new directions for research came up which were unforeseen

at the outset. The research team composition, the units of analysis and even ideas about what policy itself is (See §4.4) have all changed during the course of the work. One could say that the essence of good research is the ability to place oneself in the path of surprises and that this is something that has certainly been achieved in PTW.

There have been some significant "aha" moments during the research, such as the identification of an existing local concept for sustainable development or the realisation that the events surrounding the tank study was ideal material for PTW. Generally they have happened after a bit of pressure built up, a slight frustration with the course of events. When the response to this has been to open up the researchers' mindsets and to listen, things have often advanced significantly. Together with an attitude that the course of the research remains open to change and reformulation, PTW in Tamilnadu has taken on a life of its own.

A final point should be that the writing up in itself was a research process. It often is, but in this case explicitly so, as the Tank Study research was only initiated after drafting of the report had begun. It was not the only learning process at this stage though, as the need to explain things clearly often resulted in reframing the questions that were being asked of the data and sometimes a need to check the picture that was forming. Such an approach may not be that quick, but if nothing else it has its own satisfaction and often results in research which addresses the issues in the ground.

K3 Key Findings

K3.1 A helpful approach to complexity is to represent it in two dimensions

A map of the area allowed a diverse range of material to be represented at a stroke. (§4.1) This proved a good starting point for triangulating and adding to the data. (§3.2). Furthermore, a comprehensive view of the collective experience of farmers was provided by means of web diagrams. (§3.3) This allowed analysis of relationships between aspects of sustainable agriculture locally. For example, it helped unravel the reasons farmers do not adopt particular practices even when they see value in them. (§4.2)

K3.2 Personal relationships have a place in methodology

Making the maps created an opening to engage with farmers personally. Similarly, work with officials became much easier when they could see personal relevance in the research. (§3.2) The rewards of placing an emphasis on building personal relationships are evident in the tanks systems study. (§6)

K3.3 A commitment to learning is a valuable methodological consideration

Many of the results and even the course of the research were not expected at the outset. (§3.6) Nonetheless, allowing the freedom to change even quite basic 'givens' of the research, for example by including the tank systems study (§6) as a unit of analysis. (§3.5) The rewards for doing so can be very powerful, for example the appreciation that local farmers had their own term that closely matched sustainable agriculture. (§3.3 & §4.2)

§4 Policies that Work for Nalla Uzhavadai - Farmers' Understandings of Sustainable Agriculture

Overview: The Wisdom of the Good Farmer

The research was informed by a set of core values that intimately affected how it was carried out and ultimately the results that were found. The first was a commitment to a holistic viewpoint, where a wealth of detail was sought rather than discarded. To organise the data that resulted a map or a series of maps were drawn, which highlighted some of the local issues and changed the way that conversations could be initiated (§4.1, §3.2). A second core value was the desire to see the world through farmers' eyes. So it was crucial to understand sustainable development not just from a theoretical perspective, but from a local perspective. Similarly, it was necessary to define success in local terms. This required significant changes in the team's own terminology, but bore fruit in a concept of sustainable agriculture that suited both researchers and farmers. (§4.2)

Having established the concept, the research moved on to seeking out farmers that are 'successful' in these terms. These 'islands of success' were an extraordinary group of men. They were wealthy, but the their wealth was a result of their own hard work and moral character, rather than inherited wealth, good contacts or the influence of government policy. Although this defeated the object of the research – making connections between the islands of success and policy that works, nevertheless there is a lot to learn from these men (§4.3). Thus the third core value of the research, a commitment to a learning approach (§3.6), became particularly important as other types of islands of success were investigated. (§5, §6). Another example of this learning approach is how the understanding of what policy is changed through the course of the work. (§4.4)

4.1 A map of Tiruchuli Panchayat Union

Producing a map of the union proved an extremely beneficial exercise. As detailed in the methodology chapter (§3.2), it provoked strong, positive reactions from farmers and particularly from officials. It brought together a lot of basic information in a way that was accessible and allowed instant analysis of relationships between different parts of the union. Calling it a map is perhaps deceptive, as it is in fact a series of maps. It would be difficult to place all the wealth of detail involved on a single sheet. There was information on panchayat boundaries, village locations, infrastructure such as road and rail networks schools and streetlights, as well as cinemas, rice and flour mills and weather stations. Figure 4.1 does not show much of this detail, as it is not required for the purposes of this report. It contains just some basic features such as the main roads, Tiruchuli town, panchayat boundaries and so on.

As well as the information gathered from official sources and by visiting the villages, the map proved a good tool for starting discussions with farmers that made explicit their indigenous knowledge of the area. Although they might be relatively uneducated and have no knowledge of the water cycle in abstract terms, their understanding of it as it affects them is incredibly detailed. So they were able to show that the monsoon did not arrive uniformly across the union, but generally came in the NW first, and then progresses across the union to the SE. The practical outcome of this awareness is the way that those who live in the areas that get rain first receive help from friends and relatives in the other areas in the form of oxen, ploughs and labour when it is most needed – as the rain arrives. In turn they are able to help their neighbours when the rain arrives in their fields.

A similar pattern emerged with soil types. There are effectively two main types of soils around Tiruchuli: Red soils, which are sandy and do not retain water particularly well, and the black cotton soils that absorb water well. Their local names are '*Mundha nillam*' and '*Pindhu nillam*', which mean 'before soil/first soil' and 'after soil/next soil' respectively. The red soils are the *mundhu nillam,* which have to be ploughed first, immediately after the rain. The black *pindhu nillam*, on the other hand are often too sticky to plough immediately after they receive rainfall. This allows the farmers on the black soils to help their neighbours with red soil to plough straight after the rains and in turn receive help once their fields are ready. Thus the farmers' knowledge of the geography and climate of their area contribute not just to their understanding or even their practice, but forms part of the fabric of society in the area.

One of the things that became clear from the map was some of the illogical inconsistencies in micro-level planning and organisation in Tiruchuli Panchayat Union. For example, in the west of the union, in the elbow of the road to Aruppukotai and the road heading south through the union, there are two hamlets that are classified as part of different village panchayats than the one they are surrounded by. In one case, this is not even a neighbouring panchayat, but one about 3km distant. There is a similar case in the south of the union. (These have been indicated with arrows on the map (figure 7.1) to show

which panchayat village they belong to.) No one knows why and it doesn't seem to make very much sense for one or two villages to belong to a different unit of local government than their surrounding neighbours.

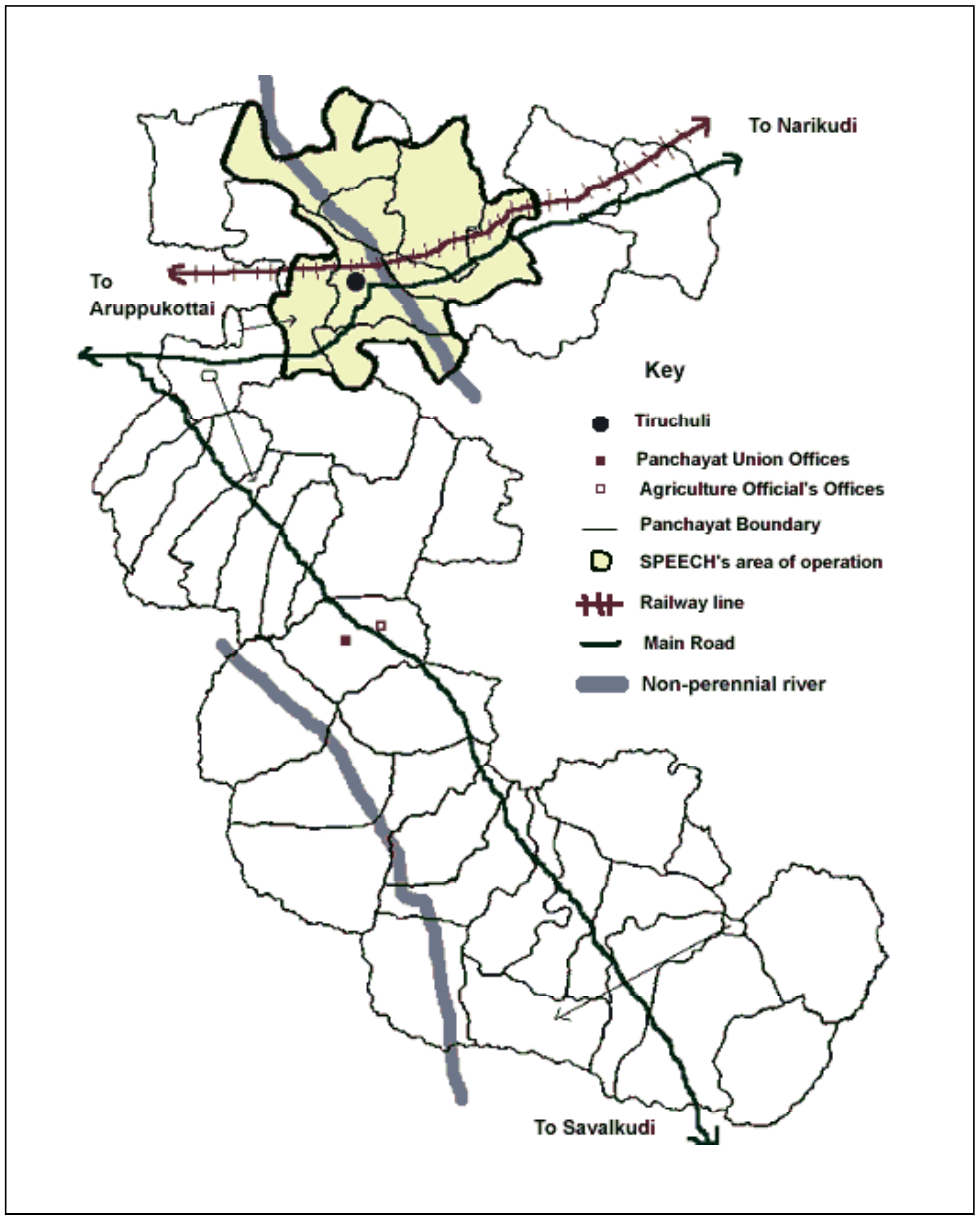

Figure 4.1 Basic Map of Tiruchuli Panchayat Union

These inconsistencies are more than merely irritating puzzles; they have real implications. It cannot be easy setting boundaries and it may well be that the shape of the union is due to overriding considerations of a wider picture. On the ground however, there are problems with treating the union as a cohesive unit. The panchayat union offices at M. Reddiyapatti are set roughly in the centre of the map in terms of physical distance. In what you could call 'people's distance', the story is different. There is no direct road link from Tiruchuli to the panchayat union offices, and to get there by public transport involves a bus trip to Aruppukotai and then a second back into the union. Based on their own experience, the research team knows that a return trip can take most of a day. For those in the south of the union, a visit still

requires a specific trip as most other business would take them in the direction of Sayalkudi. There is anecdotal evidence that the converse is true too, and that outlying village panchayats do not even see one visit by an extension official per year, simply because they're so hard to get to (see Box 2). Even without any radical reform of the size and shape of the union, a road running from Tiruchuli south to M. Reddiyapatti, along with a bus route through to Sayalkudi would help enormously. The advice and service available at the union headquarters would at a stroke become much mope accessible and thus more relevant to the population.

Box 2. A local village

Saminatham is a heterogeneous village of 125 families located 6 km South East of Tiruchuli town. Though the village has different communities like Moopers and Chettiyars (a backward community) they generally live peacefully together. All except 30 families own some land, but it is mostly non-irrigated and the plots are not large. Even so, agriculture is the main source of income for the villagers. There is little industry except for charcoal burning based upon the availability of velikaruvel (*Prosophis juliflora*). There is no bus access and hence a visit by one of the local officials is a rare event. Transport of goods is handled by bullock carts, bicycles, head loads or tractors. The nearest town is Tiruchuli, where facilities such as banks, schools (higher secondary), shops, a post office, and a veterinary dispensary are available. The main markets for agricultural produce are Tiruchuli and Aruppokottai, a town 22 km West of Saminatham.

4.2 Farmers' Perceptions of Sustainable Agriculture

Sustainable agriculture is generally translated as "*Nilaitha Vivasayam*" in Tamil, both by academics and NGOs working in the field. So initially this was the term used with farmers, who failed to identify with the phrase. They required considerable clarification because they felt it was vague. During one such explanation, a farmer made an exclamation that was to guide the rest of the research: "Oh, you mean *nalla uzhavadai*!" which means 'good farming practice'. It transpired that this was a commonly used term, with many of the same connotations as sustainable agriculture has for the research team. However, it arises out of the working lives of the farmers, rather than an abstract academic or development-centred perspective. For the farmers it indicates not only the practices themselves, but also the 'conscious' adoption of them and a faith in them. These practices are time-tested, some originating from local tradition and some in the modification of practices subscribed to by the agricultural department.

The team came to see through this discussion with the farmers that they were in fact perfectly able to comprehend the meaning of sustainable agriculture as long as it was in their own terms. This conviction was strengthened in subsequent meetings where the majority of the farmers were immediately able to understand the meaning of *'nalla uzhavadai'* in place of sustainable agriculture. Thus the team settled on using *nalla uzhavadai* for sustainable agriculture for the rest of the research.

Thereafter, and during the farmer focus group meetings, farmers developed indicators for *nalla uzhavadai* (consolidated into the 18 found in Figure 4.2). Some are to do with particular practices associated with *nalla uzhavadai*, and their adoption is the indicator that it is being followed. (No 2, summer ploughing, for example). Others are the results and particularly the rewards of *nalla uzhavadai*. (No 12, getting a good yield, for example). Still others are more ambiguous, and may be necessary in order to practice *nalla uzhavadai*, or may be possible as a result of its practice. (No 16, not keeping the land as fallow, for example).

The table shows the result of a ranking exercise with three groups of farmers: Big farmers (B), medium farmers (M) and small farmers (S), according to the relative size of their holding. Each group scored each indicator on a scale of 1 to 10. Firstly, according to its perceived importance, and secondly for the perceived likelihood that it would be could be expected or would be adopted in agriculture as generally practised. Thus though a farmer or a group of farmers might value a practice or result, they can clearly see that it is not always the way things happen. (No 17, community control against grazing and theft, for example, where all groups scored it as 10 (i.e. extremely important) but scored the actual practice as only 5).

No.	Indicator	Importance	Expectation/ adoption rate

		B	M	S	B	M	S
1	Adhering to monsoonal cycles	6	10	8	5	8	5
2	Summer ploughing	7	10	6	6	8	5
3	Application of organic fertilisers (green manures and animal manures)	8	10	8	5	7	3
4	Selecting varieties suitable for a particular time	9	10	8	7	7	4
5	Adhering to the timeliness of sowing	8	10	9	7	9	4
6	Selecting varieties suitable for the soil type	10	10	8	5	7	3
7	Following the correct production technique of each crop	10	8	7	7	4	3
8	Storing and treatment of seeds	6	9	5	4	6	3
9	Availability of labour and active participation of the entire household	6	10	8	4	8	5
10	Maintaining the land's fertility by erosion control and levelling	7	9	5	5	5	2
11	Crop rotation	10	7	5	5	5	2
12	Getting good yields	10	10	10	4	4	4
13	More income with less expenditure	10	10	10	5	6	5
14	Good marketing and obtaining good prices	10	10	8	5	4	2
15	Regular visits to the field/ direct supervision	7	10	8	4	7	2
16	Not keeping land as fallow	7	10	8	4	5	4
17	Community control against grazing and theft	10	10	10	5	5	5
18	Co-operation from other farmers	5	10	8	3	6	4

Figure 4.2 Farmers' indicators for 'Nalla Uzhavadai' (Good Farming Practice)

The indicators reveal the complexity of *nalla uzhavadai*. Theoretically, the concept could include practices that are not sustainable. For example good yields (no 12) can be obtained by heavy use of chemical fertilisers, with no thought to monsoonal cycles (no 1), summer ploughing or the application of organic fertilisers (no 3). Likewise, carrying out these practices in isolation from one another won't always guarantee good yields. In the long run though, *nalla uzhavadai,* requires the practices to maintain the results and the practices will usually attain them. It is the combination of the practices and the results that is meant by *nalla uzhavadai*. The farmers are quite well aware of the interconnected nature of its various aspects. That is why they say "*Nallathal anaithum nami perum*", (goodness benefits everything), and "*Nallathu nillaikkum*" (good things persist).

The question arises of how this concept and these indicators relate to the agricultural policy of the government. As has been noted, some of them appear to be as a result of adoption of practices promoted through government programmes. Others have nothing to do with it. One thing that becomes clear though, is the general irrelevance of the government programmes to improving on today's situation. Much of the money spent through the agricultural department goes on promotions, with an emphasis on getting a message across, rather than addressing the reason why farmers are not adopting a particular practice.

For example, in the case of the third indicator (use of organic fertilisers) there may be posters and slogans put up all around the union suggesting that farmers should use organic fertilisers (green manures and animal manures). However, these can't compete in numbers with the advertisements promoting chemical fertilisers, which are put up by the companies selling it. Farmers certainly seem aware of the value of using organic fertilisers, as they chose it for an indicator for *nalla uzhavadai*, and rate it quite highly; however the actual adoption rate is much lower for all three classes of farmers. The reason for was appreciated through the web charts (§3.3). For green manure, the disincentive is the effort and therefore the labour cost involved in producing it. For animal manure, a central theme is the reduction in the number of oxen. This in turn comes down to the effort and labour costs involved in their maintenance.

While from the viewpoint of the community as a whole, rising labour costs might translate as a more equitable distribution of wealth within the community, for many farmers it was a sore point and they are impaled on the horns of a dilemma. On one hand they face rising costs because of the competition for the labour that they have traditionally relied upon from industry and locally and in the cities. On the other, they are restricted by fixed ceilings on the prices of many food items, through the power of the buying agents and marketers and the policy of the government. This resentment of the need to pay higher wages than they are used to doing, fed by their general despair, leads to an unhelpful relationship with farm workers.

Many farmers spoke of their hired help in disparaging terms, stating again and again that they were unwilling to do their work diligently and were not hardworking.

4.3 The Islands of Success

The island of success farmers were identified by asking the farmers groups and others to name people who actually practice *nalla uzhavadai.* When their lives and agricultural practice as revealed by the interviews were compared, several common themes emerged. Firstly, they were all much more likely to give importance to the 18 indicators than the general run of farmers. This is not too surprising, but is further evidence for the congruence of *nalla uzhavadai* and the indictors.

Crucially, they are much more likely to have adopted the practices indicated or achieved the results than many others. Where most farmers had an appreciation of *nalla uzhavadai*, these farmers actually live it out in real life. Further common elements also emerged. For example, although they are quite wealthy men, they are different to other wealthy folk in their villages. All are big farmers, but most had started out with little or no land (See box 3, for example). Many rich families have quite diverse activities and interests, but the fortunes of the Islands of Success farmers are based solely on agriculture. They are consummate farmers and give their time and attention to the land.

Also, many of the other wealthy families have benefited from government assistance. With good connections, it is possible to get cheap loans or earn commission as an intermediary arranging credit for others. However, it was clear that these farmers have achieved what they have through their own effort and intelligence, rather than through the direct agency of the government. Where they have adopted practices promoted by the administration, it wasn't blindly but with intelligence. They tend not to be swayed from the paths they have chosen to pursue by easy blandishments or inducements, and only changed their practices if they could see for themselves a good argument to do so.

Box 3. Focus on a Successful Farmer

One of the Island of success farmers was a certain Mr Dhanuskodi of Errampatti in Pannai Moonradaippu Village Panchayat. The other farmers originally identified him as an island of success on account of his reputation as someone who regularly used farmyard manure, one of the indicators for nalla uzhavadai. When he was contacted it became clear that this was the case and that it was one of his passions. In his own words, "I started life as an attached labourer, whose job was to clear out the animal sheds. My employer, a landlord, taught me the importance of farmyard manure."

Mr Dhanuskodi was notable for several reasons. From his beginnings as a landless labourer, he now owns more than 40 acres of land, earned through his own efforts. In spite of his wealth, he lives in a simple house, because he doesn't want to own a big house merely for the sake of having a status symbol. On the other hand, both he and his wife have life insurance, something that is unusual in the area.

The most impressive thing about Mr Dhanuskodi is his knowledge and understanding of jasmine cultivation and marketing. He was extremely confident that he could get his bushes to flower when he wanted, to the very day, thus enabling him to get good prices by matching his harvest to the festival seasons. To get the best price on the day, jasmine should arrive in the city before 6 am, which requires the labour force to start picking by 4 am. Mr Dhanuskodi cultivates a good relationship with his workforce, through measures such as inviting them to his house the night before harvest to watch Tamil videos, and providing rice water rather than ordinary water to slake their thirst and give them energy while they work. To get his flowers to the city on time, he maintains a motorbike, rather than relying on public transport.

So rather than a policy influence that in any sense enabled these farmers to be a success, their success was rooted in their personal qualities. From their interviews and by local reputation, they are seen to be hardworking, positive, intelligent men of strong moral character. They don't drink, gossip, waste their money or commit adultery. They are reserved, but not alienated from their communities; simply uninterested in becoming involved in disputes that waste their time and create bad feeling. They are family men who maintain healthy relationships with their spouses, children and elders. Although none of them said much about a concern for others, it was clear from their practice that they have a respect and concern for those they live and work with. Their relationship with their labourers was qualitatively different to other big farmers, and they had no difficulty or qualms about paying the going rate for hired help.

So a synthesis of *nalla uzhavadai* arising from the indicators and the qualities of the island of success farmers reads as follows:

> *Good farming is both a practical and a moral way of living that brings respect and recognition as a good farmer from all around. It requires personal and family commitment and involvement with agriculture and the maintenance of good relationships with workers, family members and neighbours. A good farmer achieves good yields through caring for the land and maintaining its fertility. A good sense of timing is needed, doing the right thing in the right season, as well as a thorough knowledge and practice of the appropriate techniques for individual crops and for the farm as a whole. Good agriculture requires a strong business sense, achieving more with less expense and getting a good price through skill at marketing. It is rooted in tradition, but forward looking and open to change where it is beneficial.*

Although the picture that emerges has little to say about policies that work and is quite intimidating when one reflects upon what is required to be successful as a local farmer, it is still worth examining a bit further the connections between these men. They are successful because they have risen to the challenge of agriculture in Tiruchuli, a challenge that has embittered many others around them. There may be aspects of their experience that are replicable. If these can be fed back into the extension system to inform policy decisions, as well as to the farmers around them, then there is the chance to create development for the area that does not require alienation from the land.

For example, in the case of labour costs, none of the island of success farmers has any problem with paying the going rate. They see it as an investment, and make up the cost in different ways. Mr Dhanuskodi (Box 3) with his skill at marketing, which in turn relies on a well-paid and well-motivated workforce. Notable examples amongst the others include a chilli nursery that is so profitable that paying wages are not a problem and a farmer who has turned his land over to tree crops watered by drip irrigation, and does not require as much labour as other farmers who have similar holdings but plant annual crops.

There are simple measures that other farmers, especially the big farmers could take to improve their situation. Giving their workers tea instead of water and inviting them to watch videos on their televisions doesn't cost much, but it sends a strong message to the work force about how they are valued. There's no reason why other farmers can't learn form Dhanuskodi's example. Another example is a farmer who 'share-crops' goats with poor landless families. He buys them, they care for them and everyone splits the proceeds of their sale. He also goes around and collects their manure for use on his land. With no labour input at all, he part owns a herd of a hundred or so. There's no reason why other farmers with the resources to do so couldn't copy him. It's a matter of opening up opportunities to learn about practices that work in an environment where that learning can actually take place.

4.4 So what is policy anyway?

All through the research, the research team was trying to make a connection between sustainable agriculture, successful farming practice and policy that works. Policy that doesn't work suggested itself at every turn, but not much of the converse. Part of the problem may have been the starting point of SPEECH's research, where policies were seen primarily as government programmes. That is not simply the programme on paper, but the set of targets, procedures and so on that are set up to implement the programme. However, as has been noted (K2.2), this led into an extremely complex landscape. There was not sufficient time to inspect each of the programmes in turn and those that were examined revealed multiple levels of distortion and contradiction between programmes, with little or no benefit to farmers practising sustainable agriculture.

This might be doing an immense disservice to the official system. It may be that with a lot more time and study it might have been possible to find examples of policies that work for sustainable agriculture for individual farmers, in terms of programmes, if not for the islands of success. However, it must be considered that if a team of researchers, with extensive experience of agriculture in the area and good local connections, have a hard time finding beneficial policy affects amidst the plethora of over 140 programmes relevant to sustainable agriculture, then what sort of a challenge is it for the individual farmer? Even assuming that they start off seeking out help and solution from the official, why should they pay attention to one programme over another, even if a 300% rise in yields is promised. This might go some way to explaining the common lament amongst extension officers and agricultural researchers the world over that they have solutions to local problems, but the up-take is low or non-existent. The alternative of expecting the extension system to do all the running relies on the capabilities and situation of the extension workers, and this is not unproblematic in the local situation. (See §2.4)

This led to a sticking point in the research, where there didn't seem to be a way to report on policies that work in the way called for by the original research design. The problem was solved by changing the units of analysis and examining SPEECH's own experience for times and places where policy was seen to enable sustainable agriculture. (See§5 & §6) In

retrospect, it is possible to see that the way policy has been approached has changed through the course of the research. From an initial focus on policy as government programmes, a wider idea of policy has emerged. It is a truism that any interesting concept in the world of human affairs will be hotly contested and multiple meanings and definitions will exit. Consider sustainable development or love for example. In the case of policy this is certainly the case. Different authorities approach it from different angles, depending on their background and interests (Mayers & Bass, 1999). The idea that made the most sense in the end is that policy is to groups of people what intention is to individuals. It is an expression of their collective will from the point of view of some observer, and thus it makes as much sense to talk about the policy of the local traders as it does to talk of government policy, as long as one is considering them as a cohesive group. This definition proved broad enough to encompass the idea of policy embodied in programmes as well as the other usages in the report (Changes in policy in §6.4 of example), and the meanings given to the word in everyday language.

K4 Key Findings

K4.1 Farmers have a clear and detailed knowledge of sustainable agriculture, as encapsulated in the concept of 'nalla uzhavadai.'

There is an incredible wealth of knowledge amongst farmers concerning agriculture (§3.3, §4.1), and this extends to sustainable agriculture through the generally known concept of 'nalla uzhavadai' or 'good farming'. (§4.2, §4.3) This concept maps well to the concept of sustainable agriculture within the PTW framework.

K4.2 There is a gap between farmers' understanding of sustainable agriculture and their actual practice.

While farmers appreciate sustainable agriculture, they do not always practice it. Some reasons for this include their aversion to risk (§2.2), their general despair and cynicism (§3.3) and rising labour costs and government imposed price controls (§4.2).

K4.3 There are farmers who are successful and who practice sustainable agriculture.

The 'island of success' (§1.1) farmers are successful in material terms and in bridging the gap between understanding sustainable agriculture and practising it. (§4.3) They have found various ways around the constraints on agriculture that frustrate the other farmers in the area.

K4.4 No positive link was found between the success of the 'island of success' Farmers and policy.

The islands of success farmers are successful in their own right, due to their personal qualities. There is no clear link between their practice of sustainable agriculture and government policies. (§4.3)

§5 The Crop Case Studies

Overview: Falling through the Cracks

During the PTW research, around 40 crops were recorded in the Tiruchuli Union. However, when the local agricultural department statistics were consulted, only fifteen categories were found. Some of this discrepancy is due to clustering several crops together, some because the species concerned were seen as the responsibility of other departments, and some species were not recorded at all, in spite of being prevalent throughout the area. The significance of this mismatch between the official view of the crops of Tiruchuli and the farmer's view of crops in Tiruchuli, is that it is the former that is used to guide decision-making and intervention.

All too often during the research, the proverb, "The grass grows by itself", came to mind. Over the years there have been many different attempts to promote alternative crops or schemes which intended to benefit to the people of the area by offering opportunities for increased livelihood generation. Examples include sericulture (silk production) and polishing artificial diamonds. For a variety of reasons, many of these schemes have failed in Tiruchuli in spite of much effort and support from government and other agencies. On the other hand there are local practices that have spread without any support or intervention.

*In order to illustrate the importance of the difference between the official view of cropping in Tiruchuli and the view that emerged during the research, the results of three case studies on crops that were made during the research are included and make up the first three sections of this report. Each can be considered at least a candidate for an 'island of success' of sustainable agriculture. The three case studies were the cultivation of minor millets (§5.1) (various spp.), Jasmine (§5.2) [(***Scientific name)], and Velikaruvel (§5.3) (Prosophis Juliflora). From examining these case studies, it becomes clear that the extension system has just as much to learn from the farming community as vice-versa. They are intended to highlight one of the basic challenges for policymakers in Tiruchuli: Closing the gap between agriculture as the farmer sees it and agriculture as the department man sees it, to the benefit of both.(§5.4)*

5.1 Minor Millets

In the official statistics, the acreage of the fifteen crops are given very precisely. So, for example it is possible to see that around 4000 ha of rice [(***Scientific name)] are under rice, 4300 ha under cotton [(***Scientific name)] and so on. Some of the crops are hardly grown at all, but nonetheless they are faithfully recorded – there are 10 ha of soya beans [(***scientific name)] on the list and 5 ha of maize (*Zea mais*). One of the categories is other millets, which accounts for 1400 ha - the 6th largest category in the list. Four species, Varagu (Kodo millet – Paspalum scobiculatum) , Kuthiraivali (Barnyard millet – *Echinochala colona*), Thinai (Fox tail millet – *Sataria Italia*) and Samai (Little millet – *Danicum miliari*) fall under this category, and must therefore account for an average of 350 ha each, an incidence that would make them individually more prevalent than six other species that are mentioned in their own right.

The main reason for this is that the statistics seem to be geared towards the distribution system. The minor millets are a people's crop, and those sown around Tiruchuli are traditional unimproved varieties, which are stored from year to year by the farmers themselves. Their significance is that they provide a route to getting a return from the land even if the conditions aren't optimal in a particular season. If the farmer is able to plough in the summer and apply farmyard manure and the monsoon comes on time then there are a wide range of crops he can plant, such as cotton, rice, gingelly [(***species name)], black gram ([***species name]), and groundnuts etc. However, if any of the three conditions are not met, then there will be inadequate moisture in the soil to sustain these crops. At such times the minor millets play an important role, as they require much less residual moisture to grow.

These local millet varieties can be used to satisfy the requirements of family food consumption in bad years, but they also play an important role in maintaining the relationship between the farmer and his land. Such emotional and non-economic benefits may be impossible to quantify, but even in the context of food security and biodiversity, the minor millets have an essential role to play, as evinced by their prevalence. To continue to ignore or sideline them is to miss out on an important component of the local agricultural system.

5.2 Jasmine

Floriculture is an important practice in the area, and the research indicated that a sizeable number of farmers are involved in cultivating flowers such as kanahambaram (Crossandra – [***Scientific name]), sevvanthi [(***Scientific name)], pitchipoo

[(***Scientific name)] and jasmine [(***scientific name)]. The agricultural department has no involvement with this, and point out that it is the responsibility of the horticultural department. When the horticulture officer was approached to try and shed some light on some aspects of floriculture, and he replied he didn't know much about them, because he had just been transferred into the area.

Although both the agricultural department and the horticultural department spend sizeable sums on wall posters and mass media advertisements advocating crop diversification, anecdotal evidence suggests that crops such as jasmine have been picked up by the farmers on their own.

Of the four flowers mentioned, the research indicated that jasmine was the most important and cultivated over the greatest area. Women wear the flowers in their hair, because of their beautiful scent. They also have value in Hindu culture, where it is used in the garlands which adorn the idols in the temples or give honour to important individuals. They do not keep for long, but flowers from the jasmine producing areas like Tiruchuli can find their way as far afield as Delhi, Singapore and Malaysia because of the airport at Madurai. Their value fluctuates with the traditional festival calendar, and because of their short life, even the time of day.

Because of the difficulties with marketing jasmine and other flowers, most farmers do not practice jasmine cultivation exclusively, even if they have assured irrigation through wells. Instead the general preference is to plant between a quarter and one acre. To most farmers, jasmine represents an opportunity to earn a small but regular income and, because they can borrow money against future yields from the commission agents, an opportunity to provide for sudden credit needs without getting into debts they have no way of repaying. This practice has been lamented by some local observers on the grounds that it is a predatory relationship and heavily slanted in favour of the agents. However, the research indicates that there are other ways of looking at it, and that the relationship may be one of interdependence, rather than parasitism. Both the farmers and the agents have something to gain, and the practice of jasmine cultivation continues without any outside help. A systemic understanding is required, rather than an ideological one.

There are many ways which the prospects for jasmine cultivation could be improved. For example, one of the major factors outside of the control of the farmers is the timing of flights from Madurai. Given the lead-time for cultivation even announcing changes to flight schedules several months in advance would allow the farmers to make their plans accordingly. Various experts who were approached during the course of the case study were of the opinion that improved technologies such as refrigeration facilities and oil extraction units had much to offer in terms of increasing local livelihoods and income. However, the main lesson is perhaps that there is much to learn from the farmers themselves, Mr Dhanuskodi being a case in point (See box 3), and any intervention in the way that jasmine is cultivated and marketed would benefit from an appreciation of the existing wisdom within the community[10].

5.3 Velikaruvel

During one of the stakeholders' workshops, a member of the team was explaining about organic agriculture. He quoted from a study that claimed that even with less than an acre of land it is possible for a family to maintain the same standard of living enjoyed by the family of a government employee. The method involved an integrated system of birds, cattle and trees, which provide biomass to form a rich humus that requires no tillage as it is soft and retains moisture well. The paper stated that the farmer need not worry about paying for weeding or ploughing and looking after his farm would become a leisure time activity with the main activity being the harvesting of various crops.

The team member finished describing this harvest agriculture and from the reaction of the farmers thought that he had managed to provoke their thoughts into new directions. A few seconds later he was put firmly in his place when one of the farmers replied, *"Sir, whatever you have told us is old fashioned. We have already switched over to the concept of harvest agriculture. What we are doing with velikaruvel is nothing but harvest agriculture. No ploughing, no weeding, no watering and even so, we are getting an income. Like your organic agriculture, there is no need to live on the farm, but we don't even have to harvest it. People come and harvest it for us and pay us for the privilege. We have gone even beyond your organic agriculture."* The point was made sardonically, but it is nevertheless interesting and set the team thinking about a local practice which is certainly not a traditional local form of agriculture and which may or may not constitute sustainable agriculture.

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[10] It would also benefit from an appreciation of the lessons of the past. At one stage, small-scale palm rose oil extraction units were pushed in the district by a group of private entrepreneurs. Many farmers bought a unit, and for the first year there was a good return, as prices where high, however, prices fell during the following two years and as a result many farmers went into debt.

Anecdotal evidence indicates that velikaruvel (*Prosophis juliflora*), a thorny shrub was introduced to the area in the early 1960's; during the time that Shri Kamarajar was Chief Minister of the Tamilnadu. It is strongly drought resistant and quick growing, and it was considered that its introduction would considerably help meet the fuel wood requirements of the state. There was no centrally planned effort to introduce it, except by making seeds available to farmers. The farmers initially used it for hedging, as it is thorny. However it is the proverbial "hedge that ate the crops", and given the least opportunity it will spread far and wide on its own.

Talking to the extension officers during the research, it became clear that velikaruvel is an invisible crop. It covers thousands of acres in the district, but is not recorded in the official statistics for production, and the officials had very little to say about it. Instead the land it grows on is marked as fallow. It is true that the risks associated with rainfed agriculture often lead farmers to leave their land as fallow for one or two years, and that this gives velikaruvel ample opportunity to spread, so that one could say that the shrub is not deliberately planted. However, while it is not consciously planted, once established it is usually consciously left to stand, as it can provide a regular income every three years, and so one could argue that it does qualify as a crop.

When it has reached it's full growth, it is harvested by traders who supply a growing market in fuel wood and charcoal, in return for a reasonable payment. Though the income is not high compared to other crops, there is no particular effort involved and it comes from land that almost by definition is difficult to cultivate with other crops. Also there are savings in letting it grow and harvesting it, compared to trying to control its spread. Many farmers expressed the feeling that allowing velikaruvel to spread was disrespectful to the mother earth, but the reality of rainfed agriculture and the opportunity offered by the local market for velikaruvel meant that some of them had opted to follow this path. The general feeling is that the fertility of the land under velikaruvel falls over time and that it draws up an incredible mount of groundwater. Therefore there are questions about its wider sustainability, but at the same time it is clear that the story of the shrub is not straightforward, and it offers opportunities as well as problems for local sustainable agriculture and rural livelihoods.

It is in the latter case that the potential of velikaruvel becomes clear. The government machinery spends a lot of money attempting to increase the local capacity for value addition, through offering training in food processing, and so on. Not only the government, but also local NGOs are involved in training women about fruit processing in areas where fruit does not grow at all. In contrast, an indigenous value addition process has grown up around charcoal burning, mainly on the initiative of commission agents and local traders.

At present it is the traders who look after the charcoal making process, by contacting the farmers, offering them advances, and hiring workers to undertake the labour intensive process of cutting and burning the wood. The traders don't have the resources to engage in large scale transactions and lack knowledge of the end uses and customers, and it is the commission agents who take the responsibility of marketing the product to various destinations, right up to Northern India. The commission agents in turn have no particular capacity for organising workers and the production process, the function that the local traders carry out. The farmers on the other hand are hardly involved at all, because of a lack of knowledge of the end uses of the charcoal, the physical drudgery involved in processing and transport and perhaps a lack of viability due to the small scale of individual holdings. Their sole function is to provide the land on which the raw material grows. Together the three parties form an interdependent system that seems to be at least temporarily sustainable. Further research may well illuminate ways that the system can be improved to the benefit of the local community.

5.4 A two-way learning

Where government policy did have an influence on these crops, it was through incidental and unplanned effects such as changes in the provision for transport infrastructure. It is clear that in all three cases, there is a livelihood system centred on a particular type of crop that is ignored by the official system for whatever reason. While it is possible to understand why this is the case, it is also clear that in terms of development intervention it is senseless to attempt to improve matters without understanding what the situation is. Many of the failures of the past were as a result of trying to introduce crops or technologies that simply where not suitable for the area in the long term, while ignoring existing local ideas which were already proven. What is required is to find ways in which the official system can become more responsive to the needs and concerns of the people whose livelihoods may depend or come to depend on decisions made hundreds of miles away. In other words that the understanding of the flow of ideas should be of a two-way traffic, rather than a simple duty to spread a message.

K5 Key Findings

K5.1 There is a gap between the assumptions concerning crops built into the policy delivery system and the ground realities.

Several important crops, each with lessons to offer for sustainable agriculture and rural livelihoods in Virudhunagar are neglected by the official policy system. This is due to inappropriate categorisation (§5.1), fragmented responsibility (§4.2) and a complete lack of knowledge about a significant crop. (§4.3)

K5.2 A more appropriate policy delivery system could be built around the appreciation of existing success, as well as attempting to foster it based on external models.

There is no clear link between the crop case studies seen as islands of success of sustainable development and policy. However the crop case studies demonstrate that there are opportunities to improve policy on sustainable agriculture by basing it upon learning about what works locally as well as information dissemination on what works elsewhere. (§5.4)

§6 The Tank Systems Study and Rehabilitation Project

Overview: A Different Type of Island

Having found no particularly encouraging existing links between the local policy framework and sustainable agriculture as it is understood locally, it was decided to widen the boundaries of the research project. Alongside the pure research and the on-going work in Tiruchuli to create links between policy implementation agencies, the island of success farmers and the general run of farmers, the researchers realised that there was another area of SPEECH 's work that was suitable for inclusion in the study. This was the Tank Systems Study that SPEECH carried out in the Villur chain of tanks[11], and the implementation scheme that followed. It is clearly an island of success in terms of the current and projected impacts for sustainable agriculture and rural livelihoods in its target area, and a supportive policy framework that enabled the success is easier to see, and better understood. This chapter deals with the Tank Systems Study from the point of view of SPEECH. It is based upon an internal review; together with crosschecks with some of the other actors involved.

The Tank Systems study was initiated by an engineering consultants, W.S. Atkins International, on behalf of Tamilnadu Public Works Department (PWD) and the European Commission, partly to explore the scope for participation of farmers in tank modernisation. The first stage consisted of a series of PRA exercises in each of the villages served by a tank in the village chain. The PRA carried out by SPEECH complemented a study of the physical aspects of the chain by W.S. Atkins and PWD staff. (§6.1). Although initially, the project had only been meant as an experimental feasibility study, when the response of the farmers to the PRA became apparent, the idea of inviting their participation in the implementation scheme was floated. SPEECH undertook to organise Water Users ' Associations that would carry out the work themselves, rather than government contractors. To launch the implementation phase, a chain-level PRA event was held to appreciate the holistic nature of the system of tanks. (§6.2)

The big surprise of the project was the runaway success of the padayatra, a consciousness-raising event that led to unexpected changes in the attitudes of various stakeholders. The key to this was an emotional reaction between the local people and the senior officials responsible for the project that can be partially explained by the carefully constructed context in which they can come together. (§6.3) The project led to many changes in the fortunes of various stakeholders, but was essentially positive. There were also changes in PWD policy, as a direct result of the project (§6.4)

6.1 The Tank Systems Study – PRA with the Villagers

In Tamilnadu, even in the areas where there is no systemic irrigation, irrigation tanks play an important role in agriculture and food production. Due to years of neglect, many tanks have silted up and can no longer store enough water to ensure a good harvest in the area of land they service. In some areas, where the tank only needed to fill once to ensure a good harvest, it is now necessary for it to fill three times before a crop can be ensured. In 1984, PWD Tamilnadu undertook a programme of tank modernisation in co-operation with the development arm of the European Commission (EC).

During 1996, W.S. Atkins International, the engineering consultancy representing the EC, undertook a series of studies on tank modernisation under phase II of the programme. It sought out NGO's to carry out participatory exercises to complement the physical and hydrological measurements taken by Atkins and PWD staff, in response to the EC's emphasis on participation. SPEECH was one of the organisations shortlisted and was eventually selected along with two others. At this stage the idea was purely to gather information, and see whether PRA methodology could provide useful information for feasibility studies. Neither SPEECH nor W.S. Atkins had any intention of extending the idea to implementing the rehabilitation plan.

The Tank Systems Study[12] was carried out over a period of a year. The challenge for the team was that there were no existing links with the area, and every village was new as far as SPEECH was concerned. This was a situation it had not faced since the early days in Tiruchuli, when its attention was focused on education and organisation rather than specific project, and new skills in terms of approaching unfamiliar communities had to be learned.

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[11] An irrigation tank refers to a water storage system, ranging in size from an earth dam across a valley to a small stone tank. A chain of tanks is a series of these down a watercourse.

[12] The name of the study is slightly confusing, as both the SPEECH component and the overall Atkins project where called the Tank Systems Study. In this report, Tank Systems Study indicates SPEECH's project.

SPEECH used PRA to allow the villagers themselves to report on the state of the local tank and what needed to be done in order to rehabilitate it. In addition, the villagers were asked to describe the village, their lifestyle and their livelihood patterns. As well as the rehabilitation of the tank, other village needs that surfaced during the PRA were listed and prioritised. These were recorded as part of the village reports and later formed part of the implementation scheme.

It was a clear policy of the SPEECH team not to make any promises about the tank project or even to mention that a project was coming. They built up a good rapport with the villagers, but it was based on the fact that they were willing to spend time with them and listen to their concerns, rather than on any material promises. First impressions count, and in this case SPEECH was able to demonstrate to the local people that it was genuinely interested in hearing what they had to say. This basic relationship was to prove invaluable later on during the speedy mobilisation of the village people for the chain level PRA.

Throughout this period Atkins and PWD staff were working in the area, taking their own measurements, and checking that SPEECH was doing the work that it said it was doing. The relationship with the PWD officials was fairly neutral, but they at least could see that SPEECH was genuine about what they were doing. The attitude of the Atkins staff became warmer though, as they could see the rapport that SPEECH was building with the villagers and that the information that was coming out was extremely relevant to tank rehabilitation.

6.2 The Chain Level PRA and the Water Users Associations

After the tank level PRA, W.S. Atkins became keen to extend the experiment from merely researching what had to be done using participatory methods to allowing villagers to participate in the implementation of the work. SPEECH was initially against the idea, but over several months, Atkins persisted in requesting SPEECH's help for the implementation scheme. SPEECH's reluctance was based on two premises: The first was that they had no technical expertise in engineering, and the second that PWD was perceived as difficult to work with and bound by protocol. The W.S. Atkins staff countered that SPEECH would be working as consultants dealing solely with the social side of the implementation, and gave guarantees that they would help with any problems with the PWD.

On this basis and after negotiating some changes to the budget to allow for consciousness-raising events, SPEECH agreed to go ahead with the implementation, and started by organising a PRA exercise for the whole chain. Even though SPEECH had finished the Tank Systems Survey eight months before and had not subsequently returned to the area, it was able to mobilise the people and organise the two-day chain-level PRA in only fifteen days. This was possible because of the firm foundation laid with the locals during the initial research, and the good feeling that had resulted from it.

The aim of the event was to provide a forum for people from different villages to sit together and discuss the overall situation. During the tank-level PRA exercises the people had shown an awareness extending beyond individual tanks and channels, but now they were able to pool their understandings, and create a larger picture for everyone to see. Local customs and values were used to form a cultural programme as part of the chain-level PRA: For example, candles were lit in front of a garlanded map of the chain, and a specially composed song was sung to honour the tanks. This increased people's enjoyment of the event and identification with it.

For the villagers, this was an opportunity to sort out some of the problems between villages that had bedevilled the system in the past. Many problems with tanks can be sorted out at the village level, but because waterways can sometimes run through several villages some problems require inter-village co-operation. The local people had demonstrated an awareness of this interconnected nature of the various tanks during the tank-level PRA and now they were able to put this into practice by tackling issues together over which they had previously been divided. The fact that such problems could be solved built up local commitment to the scheme and further strengthened the relationship with SPEECH.

As well as the NGO staff and the local people, the chain-level PRA was attended by observers from W.S. Atkins, by local PWD officials and by some senior officials from PWD in Chennai. This latter group consisted of a pair of non-engineering specialists, who act as advisers to the Chief Engineer for Minor Irrigation and Tank Rehabilitation, the man within PWD who was ultimately responsible for the project. The effect on the officials of the chain-level PRA and the enthusiasm of the people was immense, and confirmed Atkins' arguments about the power of participation in such schemes. The local officials were also impressed. Before the chain-level PRA, their relationship with SPEECH was purely to do with checking the work, but after the meeting when they saw that the organisation had a mass base, many of them began to respect the NGO.

The chain-level PRA created the right conditions for the germination of the project – the seed was there during the tank-level PRA, and the chain-level PRA watered it. What followed was a long slow process involving the formation of a water-users association for each tank in the chain. As each association formed, it was registered with the state to give it an official status.

Working in this way with community based organisations (CBOs) is something SPEECH has long term experience in, and the team was able to deal with issues as they came up.

Having identified the needs of the tank users during the initial research, a budget was prepared for each group that included the non-tank needs that had been prioritised earlier. The plan was to allow the water-users association themselves to organise and carry out the work, rather than government contractors, as was the custom. SPEECH's role involved providing thorough training and capacity building, as well as support with forming the estimates submitted to PWD for the work.

In total, 13 associations were formed, with a combined membership of 1169. Collectively, various water users' associations are organised as a chain level federation, to give them collective bargaining power and a forum to solve inter-tank disputes. Inter- and intra-group clashes have been completely checked. A further benefit is that the interference from middlemen, politicians and local contractors has been by-passed, through having the villagers themselves carry out the work.

An important part of the EC tank rehabilitation has been the idea of mobilising 10% of the cost from the farmers themselves. This could be in labour, cash or kind. This has been achieved throughout the Villur chain, although there were some initial difficulties with farmers' attitudes towards the idea. This was overcome through careful explanation and discussion, and the realisation that it could be seen as an investment.

6.3 Creating the right atmosphere for change

Alongside the process of forming the groups and fixing the budgets, SPEECH had negotiated for some money to be laid aside for raising general awareness. The vehicle chosen to do this was a three-day *padayatra*[13] or march, following the course of the chain. The original intention had been to allow everyone to see for themselves the reality of the situation of the tanks and to try to form a sense of responsibility for it and an intention to look after it within the various communities it serves. The main result though, was completely unplanned and has led to many outcomes from the project, which were beyond the expectations of anyone concerned.

The plan was to hold a three-day programme, covering all the villages of the chain over the course of a 35km route. The *padayatra* would begin with a meeting in the first village of the chain, to which various dignitaries where invited, including the Chief Engineer (CE). After the meeting the march would start, and as each village was approached, a group of villagers would come out and greet the marchers on the tank-bed as guests of the village and then bring them into the village where another meeting would be held. Refreshments or meals and entertainment in the form of music and songs were provided.

In order to create the right atmosphere, SPEECH encouraged the villagers to see the visit of the marchers as an opportunity to extend collective hospitality to them. The field staff went from village to village and informed them what the other groups were planning. Each villages responded by ensuring that their plans didn't fall short of the mark set by their surrounding rivals. There was also some careful thinking about how to welcome the officials. SPEECH's staff spent time with the villages discussing the fact that the officials were visitors and guests and should be respected. Any connotation of protest was removed from the *padayatra* by ordering special *dhotis* and shawls that served to reinforce the links with pilgrimage rather than politics.

Although the Chief Engineer had met with SPEECH a couple of times, there had been teething problems, mainly to do with differences of style. The CE had a good working relationship with the consultants at Atkins, but was not yet wholly convinced that SPEECH were trustworthy and efficient. The day before the rally, these suspicions were hardened by a near disaster. A press meeting was held, and the CE was invited to attend by a SPEECH staff member in a way that violated his ideas of protocol. Words were exchanged, and the atmosphere was still very cool the next morning at the start of the *padayatra*. However, the crowd was extremely well behaved and became very emotional at the thought of such a great man coming to visit them to see for himself their problems and to give his approval to the plan. Their discipline and excitement communicated itself to the officials and during the course of the rally, the Chief Engineer began to change his mind about the project and about SPEECH.

The first concrete sign of this was a change in his plans, when he insisted on joining in with part of the march. The fact that this highest official was eager to walk 4-5km with the people, in turn said a lot to them. As the march progressed and the

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[13] *Padayatra* is an Indian concept meaning a walk with a specific goal in mind. It has connotations of intention and reverence. Originally padayatra meant a group pilgrimage to a temple or shrine, but it acquired additional significance when Gandhi took the concept and used to describe his march to the sea to take salt as protest against the salt tax, in the initial part of his program of Satyagraha in 1930.

party was extravagantly welcomed to each village, the relationship deepened and has led to several outcomes (discussed below) which seem unique to this project alone in many people's experience. The Chief Engineer left at the end of the day to carry on his duties elsewhere, but word spread that something special was happening and by the third day other officials from Madras had come to see for themselves what was going on.

6.4 Outcomes

As of July 1999, the Tank Systems Project implementation is around 70% complete and the work should be finished in time for this year's rainy season. The local water users will be the primary beneficiaries: Whereas before investing in planting and raising a crop was a gamble, now there is a reasonable chance of a return on the investment, and agriculture becomes much less risky. This is significant in the light of the findings in Tiruchuli, where risk and loss of earnings due to uncertain rainfall was seen as a major disincentive for agriculture, and an important reason for alienation from the land. There are also benefits for the wider community, as a result of reduction in inter-village tensions, employment for landless labourers and a growing belief in the possibility of communal resource management. However, the benefits are much wider even than this.

Tracking the outcomes of the Tank Systems Project was something that SPEECH had not attempted to date, as the implementation phase is not yet complete, so many connections only became clear during the review for PTW. One of the central features that came to light was the new relationships that were built. Figure 5.1 below illustrates the change from the usual project implementation model to what happened in the case of the Tank. In a normal project, the senior officials would approve a budget, which the local officials would implement by approving a local contractor to carry out the work. This can result in a hide and seek game, where the local officials and the contractors collude to skim off project funds. The senior officials in turn try to catch them at it, either to rectify the situation or to take a cut themselves. If the quality of the work is low, the local officials now have a stake in covering it up. The local people are excluded and become passive recipients of possibly flawed projects.

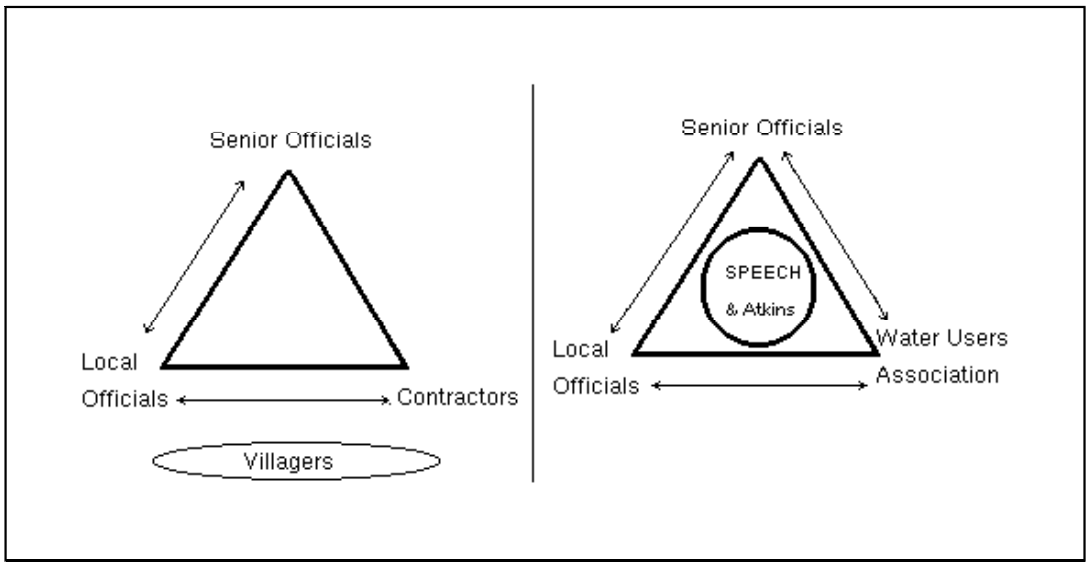

Figure 6.1 Changes in the relationships involved in project implementation

In this case, a significant development is the change in the way that the officials relate to local people. PWD, being a large and powerful institution, has rest-houses throughout the state, and the norm when a senior official visits the field is for them to stay at such a rest-house and the local officials arrange to bring anyone they want to see to them. The new situation in the Villur Chain is that the senior officials can now go directly to the villagers and stay with them, which is exactly what happened during a follow up visit by the Chief Engineer. This direct contact short-circuits the link from the senior officials to the people through the local officials, which is what allows the local officials to control what the CE can learn about the situation. This short circuit between the villagers and the senior officials has cut short the hide and seek game, as any

wrongdoing can be immediately brought to the attention of the people in charge of the scheme. Furthermore, the contractors are now the water users' associations, who have an interest in carrying out the work properly. For the various stakeholders involved, there have been both gains and losses, but with the exception of the local contractors who have lost out on work, the picture that emerges is essentially positive – See Table 6.2.

Stakeholders	Gained	Lost
Local People	• Needs fulfilled, as identified by the study. • Reduction in risk in investment in agriculture • Quality of work assured • More harmonious relationships • Reduction in migration • Employment for landless labourers	• Some loss of land where illegal encroachments previously took place • Gave some free labour initially
Local Officials	• Less workload • Meet their targets • Better relationship with the people • Higher status within PWD	• No kickbacks from project • More time spent meeting people during the evenings
SPEECH	• Strong basis for expansion into Villur area • Lessons learnt about how to market ideas to the people • Enhanced reputation • New contracts to do similar work in other areas	• More time away from home for staff
Senior Officials	• Their ideas worked • Involved in a model project	
Chief Engineer	• Enhanced reputation • First hand information on what's happening • May gain future consultancies when retired	• Took a measured risk
W.S. Atkins International	• Enhanced reputation • Satisfaction that their ideas paid off	
Local Contractors		• Lost out on some lucrative work

Figure 6.2 Stakeholders' gains and losses

The final outcomes, and perhaps the most significant from the point of view of PTW, are two policy shifts that arose out of the Tank Study. The first concerns PWD practice. It is customary for contractors to pay a large deposit to guarantee their work before commencing operations. In the case of the Water User's Associations, this is clearly not practical. After lobbying by SPEECH, PWD changed its policy in the case of Water User's Associations so that they need not pay a deposit, although payment for the contract was held back until the work is completed.

The second change was within PWD, where some of the local PWD officials saw that one of the budgets concerning the project failed to reflect what was actually needed. As they do not have the authority to change it, they took it upon themselves to send the budget back to Chennai requesting alterations, which duly came through. Such initiative is not usually fostered within the bureaucracy, but in this case the junior officials felt it important to get things right, because of their personal interest and commitment to the project. This perhaps is the whole story of the tank study and why it is bound up with policy that works.

K6 Key Findings

K6.1 It is possible to make links between policy and sustainable agriculture.

The tank systems study can be seen as an island of success of sustainable agriculture, as it addresses one of the chief challenges to farmers in the district – risk of crop failure due to lack of sufficient water form the monsoon. (§6.4) Taking a looser definition of policy than 'policy as government programmes' (§4.4), there were both clear links between the tank systems study and the policy framework (§6.1, §6.2) and changes to policy and policy processes. (§6.4)

K6.2 A key to the success of the tank systems study was the participation of stakeholders.

Participation led to a bond of trust between SPEECH and the potential beneficiaries of the tank modernisation project and the tailoring of the scheme to each village. (§6.1) It also led to the resolution of problems that had previously made tank management difficult (§6.2) The relationship between SPEECH and the local people formed the bedrock upon which the dramatic changes surrounding the *padayatra* was built. (§6.3)

K6.3 Official policy was changed as a result of the tank systems study.

Two tangible policy changes arose out of the tank systems study. (§6.4) Harder to quantify are the intangible changes to policymaking processes and policy implementation. (§6.3, §6.4)

K6.4 The success of the tank systems study and the policy changes associated with it depended on changes in the way that people relate to one another.

The relationships between SPEECH and the local people, and the staff of WS Atkins and the senior PDW staff led to a new relationship between the local people and the senior government staff. (§6.3)

§7 Building Relationships

Overview: The Primacy of the Personal

One of the key lessons that has come out of this research is the absolutely essential nature of personal relationships for the policy process. Given the complexity of the situation on the ground and the complexity of the policy framework, what actually happens during the policymaking and implementation process gives many degrees of freedom, particularly given the dynamic nature of governance. Too much freedom is a bad thing, as without some stability, the system cannot function. The glue that binds everything together is the alternative or "shadow" system – (Shaw,1996) which permeates the official structures. (It is based on implicit rather explicit knowledge and personal rather than official relationships.) To ignore the shadow system is to ignore a major component of how things are and to fail to understand the potential of learning to operate within it.

In an attempt to understand how SPEECH has operated in this setting, a general model for influencing policy has been put together. This draws together aspects of SPEECH's ongoing practice and shows their relationships to one another in the task of forming or influencing government policy. (§7.1) One of the crucial links in this model is gaining the attention of a senior official through informal channels and SPEECH has found three particular ways of doing this helpful. (§7.2) Finally it is noted that although it may be necessary to operate within the shadow system to get things done, there are dangers involved. A firm ethical basis is required to ensure that operating in such a way does not harm those that the organisation wishes to serve. (§7.3)

7.1 A Model of Policy Change based upon Building Relationships

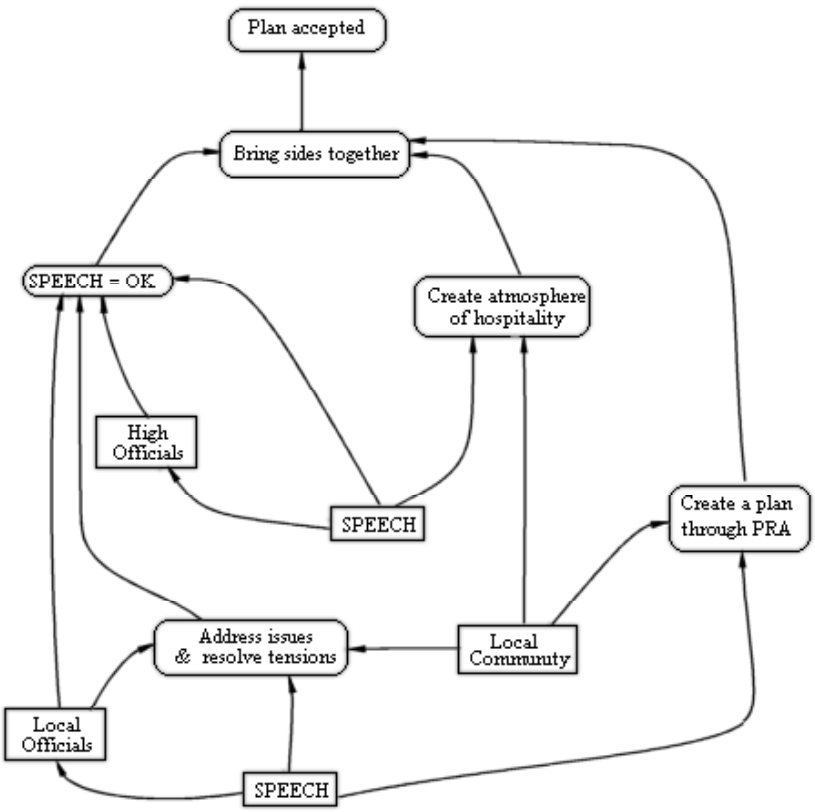

Figure 7.1 A general model of relationship building

Following the exercise in remembering the tank study, the question arises of how general the implications for policy and influencing policy are. Clearly there is something of value in looking at a case study where there were far-reaching changes, but what does this have to do with SPEECH and others' ongoing practice? These questions led to a search for general principles for policy change, based on SPEECH's 12 years of experience of development in Tamilnadu, where sometimes policy has been a great help and sometimes a huge hindrance. Presented above (fig. 7.1) is a general model based on this experience. It should be made clear that this model has not at any time 'happened' nor is it a blueprint for action in the future. It merely puts together aspects of events that have taken place once or more in the past and shows how they may relate to each other in general. In the diagram, square boxes represent actors, while boxes with rounded corners represent events or impressions. The lines represent interactions.

The model is situated in SPEECH's day to day operation amongst local communities. The interactions between SPEECH and local communities are characterised by the building of trust, through SPEECH's commitment to listening to the villagers' issues before moving on to plans for specific projects. When these do arise, they are formulated by a joint exercise of SPEECH and the local community, through the practice of PRA. At the same time SPEECH will be building relationships with local officials. These may not always be the most efficient or honest people, but often there are good men and women in the system with whom alliances can be made. In any case, in the words of one of the staff members, *"These are the officials we have got and so we have to work with them."* These relationships are personal in nature and visits are informal rather than appointments. An official might be invited out for a cup of tea for example, and an issue or problem discussed with them during the time spent together. This approach can be extended to bring officials and members of the local community together to address issues and resolve tensions. Often all that is needed is some sensible discussion in a situation where no one feels threatened.

So far, the processes modelled are part of the regular fabric of work at the local level. Sometimes, however, it may be necessary to operate at a completely different level. For some projects, there may be a requirement to work with senior officials or at least get their approval for work to progress smoothly. In these times, another mode of operating comes into play. The first step is to create a link with the senior official/s in question. In the tank systems study, this was taken care of by Atkins, but one cannot always rely on a friendly group of consultants to do the work. In §7.2, some alternative routes to the top are discussed. One thing they have in common is that they all rely on informal channels. Everyone affected by their decisions is trying to get the attention of senior officials and the system is set up to protect their time rather than make them accessible.

Assuming one is noticed, it does not immediately follow that the official will be willing to co-operate. Through officialdom, the primary rule is 'safety first' (See §2.4) and this is particularly true at the top where a lifetime's work has brought success, and a clean record is all that's required for a comfortable retirement. No one is going to risk their pension on a good idea just because it's good. What is needed is a careful check to see that SPEECH is reputable and reliable. One component of this checking is an examination of the information that SPEECH itself can supply. A well thought out and professionally presented proposal and budget, along with documentation from previous projects, are a must. Evidence that SPEECH has been able to co-operate with that particular department in the past is a strong boost as well. Finally, the resources to do the job with payment in arrears reassures the official that SPEECH will not just take the money and run.

Being able to provide all this information is fine, but events won't even reach this stage until the senior official has done some checking of his own, and that is where the relationship with day to day practice lies. The first place a senior official will go to in order to find out about SPEECH will be his local representatives, the local officials. When he asks them whether they've heard of SPEECH, the answer will be affirmative, because of the personal relationships members of SPEECH have with officials. (See for instance § 3.2) When he asks for evidence to back up their impression of the organisation, they can point to local issues that have been resolved through SPEECH's involvement. It is this positive image, built upon effort on the ground, which can move the senior official into allowing himself to become involved in SPEECH's plans.

All the pieces are put together by bringing the sides together in an atmosphere which allows progress. With the local people, SPEECH emphasises the need to welcome visitors as guests of the community. All too often in India, an official will visit an area only to be verbally or even physically harassed. While this may be a genuine expression of the local people's frustration, it is not particularly constructive, and SPEECH has found that things are better accomplished in an atmosphere that is perhaps equally charged, but in a positive way. Then when the plan is presented publicly it massively reinforces rather than detracts from any private advances made in its support.

7.2 Routes to the Top

As mentioned above, you cannot rely on the senior officials to come and find you when you want them to. Nor are the regular channels a particularly helpful or reliable route to their attention. Instead, informal channels can be more reliable and a working knowledge of how to use them is essential. Three examples of how to do this from SPEECH's experience come to mind: Local ties, working relationships and alternative power structures.

The first route works through the fact that everyone comes from somewhere, and that one's native place has a special place in one's affection. It is often possible to find one or more people inside the official structure with direct or family ties to the area where one is involved in development work. This might not be the person at the top, but he will have a large staff and the chances are that a link to one of them will exist. There are other ways to use such links too. For example, in the past SPEECH has been able to get access to data and information relevant to its work and disseminate it for the benefit of local people through the good offices of people with access to the files.[14]

Working relationships refers to relationships that are formed in the context of other work. John Devavaram, SPEECH's founder, has a long career as a consultant in development projects. The links made during consultancies, if maintained properly, can pay off years afterwards. Thus it pays to be efficient and give good value in even small jobs, not just because it generates repeat work, but because of the potential for influence that evolves. Another way SPEECH in general forms working relationships is through providing training. It has a strong reputation for delivering training in PRA, and has done so with groups from all sorts of backgrounds, including the government services. An important feature of these training sessions is that they are fun, something a bureaucrat does not necessarily often find in their official duties. In such an environment, relationships can form that are positive and long lasting. In both cases, access becomes possible because the official knows the organisation, and the associations are pleasant. This doesn't mean that the checking process mentioned above is no longer necessary.

Finally in many situations, aspects of the shadow system may be quite structured. There may be configurations of power within a bureaucracy that have very little to do with the way that it is officially organised. Locating and using these other channels is a worthwhile exercise. An example of this from SPEECH's experience is the officers associations. Figures who are quite low within the official system have considerable influence due to their positions in the associations. As their status is internal to the official system, rather than external, they may also be more accessible. So in one particular case it became possible to set up a meeting with a senior official because the secretary of the officers' association was a local man with good links to SPEECH, but had enough internal status to arrange a meeting and provide a good reference as well.

7.3 An Ethical Foundation

When working through the shadow system, it is important not to become tainted by it. Corruption by its very nature needs to remain hidden and the best place for this is in the shadow system, which as a result can be very shady. It was felt essential by SPEECH staff to emphasise that although one might need to work through informal channels, this can only be done with a firm commitment to the grassroots and a strong set of values and the basic value is service to the community. If money is received on their behalf, then it should be used for their benefit. If opportunities for work arise, they should be perused for the opportunities they create for the grassroots, and if these are insufficient the proposal should be altered or rejected. By keeping the interests of the community in mind, the capacity to build and maintain relationships with them is retained.

An holistic approach to development is required. SPEECH believes that sustainable development that ensures that the interests of the weakest sections of the community are truly represented, will only be realised from the adoption of an integrated approach. That is, an approach that tackles poverty, health, literacy and empowerment through self-government and organisation. However, SPEECH believes that unless the inter-related components that combine to inhibit development are all tackled, both at the local and institutional level, sustainable solutions to rural development will not be achieved. 'Bottom up' development in isolation will not succeed. It is only when sufficient acceptance for change is generated at the 'top' that locally led initiatives can become self-sustaining and replicable.

To assist in this process and in order to avoid confrontation and the alienation of those sections within the village who may feel 'threatened', SPEECH ensures that sufficient attention is given to working with and fostering relationships and contacts with

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[14] This may sound like espionage, but in reality it is much more benign. Information often becomes 'stuck' in the system because it requires effort to make and distribute copies and it is not usual to allow outsiders access to government files. So the results of soil tests, for example, may not become available to farmers even though it is they who stand to benefit most from them.

these groups. Unless sufficient will and acceptance for change is generated at the top, whether among the larger land owners and richer farmers within the village community or within the government and administrative/political sector, local initiatives are unlikely to succeed. These relationships become crucial when engaged in negotiating benefits for SPEECHs grassroots constituency.

Thus the importance of relationships is clear. Good relationships with those one works with and whose lives are affected by one's work is an indicator of the positive effects of one's actions. These relationships are essential not just with outsiders, but within the organisation too. A top-down management approach with no scope for consensus and accommodation does not result in motivated, creative staff. Conversely, when staff are given the freedom to comment and alter ideas they naturally acquire the energy and commitment necessary to engage the people they work with in positive ways to the benefit of the whole organisation.

Finally there should be a commitment to creativity and daring. Many of SPEECH's projects have been original, or involved taking an idea that has been used elsewhere and not being afraid to alter it completely. The price for being original is surprisingly low and the rewards are considerable. There can be no recipe for creativity, except to say that it involves allowing ideas to suggest themselves. Seizing opportunities rather than rejecting things out of hand because they are different. Careful thought and experimentation can take even the strangest idea and turn it into something real with a life and vitality of its own.

K7 Key Findings

K7.1 It is possible to change policy by working through the 'shadow system' of personal relationships and unofficial channels.

The policy world is not restricted to the rational and the impersonal. Looking at SPEECH's experience of development, there are many instances of influence on the policy environment that arose out of nurturing personal relationships. (E.g. §6) These can be synthesised into a general model of working the policy system based upon relationship building (§7.1)

K7.2 A strong ethical foundation is helpful rather than a hindrance when working the 'shadow system'.

The research team and the staff of SPEECH felt it necessary to emphasise that working within the shadow system can be done ethically and that doing so is beneficial (§7.3)

§8 Conclusions & Recommendations

8.1 Consolidated Conclusions

Sustainable agriculture and rural livelihoods are important to the future of not only Virudhunagar, but to many similar regions throughout rural India. (K2.1, K2.2) While the state has multiple programmes relevant to sustainable agriculture, they are delivered through a complex policy implementation system that suffers from incoherence and distortions. (K2.3) Two particular distortions are the forces directing the attention of officials towards internal affairs (K2.3), and the concentration of resources on providing information through mass dissemination. (§4.2)

The latter is a distortion, because farmers' focus groups showed that farmers are already aware of sustainable agriculture and that when they do not adopt sustainable practices, it is for reasons other than ignorance. (K4.1, K4.2) Those farmers who do practice sustainable agriculture, do so for their own reasons and because of their won qualities, rather than anything to do with government policy. (K4.3, K4.4) Similarly the system has no relevance in the case of particular crops with potential for sustainable agriculture because of built in assumptions of their importance or even existence. (K5.1)

Although there were difficulties in making a connection between sustainable agriculture and rural livelihoods in terms of crops and farmers, and policy in terms of programmes, the research did find an instance of links between the world of policy and of sustainable agriculture on the ground. (K6.1) This was the case of the Villur tank rehabilitation project, which was based upon participation (K6.2) and the resulting changes in the relationships between its stakeholders (K6.4) and official policy. (K6.3)

The main lesson of the report is that the gaps between the world of policy and the world of the farmers exist, but they can be closed. There is a need for a more responsive system that learns from ground reality (K5.2) and it's possible to build towards this through grassroots participation and a willingness to work through the shadow system of personal relationships and unofficial networks. (K7.1, K3.2) To do so is possible without compromising important principles. Indeed such principles can be a significant asset when married to a commitment to creativity and seizing opportunities. (K7.2)

8.2 Using the lessons of *Policies that Work*.

Although the results of researching into policy that works, starting from policy as programmes and using individual farmers as units of analysis, proved somewhat inconclusive, there were several opportunities for working in the policy world that arose through the research. The engagement with officials and others during the research has changed SPEECH's relationships with such actors in the area. There is more regular contact with officials, which means that there are more opportunities to gain their ear and possibly change the way policy is implemented. There may even be possible ways to form policy through these links, although this is a more ambitious and long-term project.

One of the ways that SPEECH is trying to capitalise on the new working relationships and use the knowledge of the area, agriculture and people gained during the research is through a follow-up project that is already underway. The idea is to produce a yearbook or gazetteer for the union, based on the research maps and other data, along with information on each village and any further material that seems relevant. As a number of extremely capable, locally respected figures came to light during the PTW project, SPEECH's intention is to try and produce the book in collaboration with an action committee made up of such people; the production costs to be raised through local funds. The challenge of producing the yearbook can be used to bring together capable individuals in a way that engages them to the benefit of the whole community.

The main policy use outcomes of the plan is simple: One of the restrictions that local officials face is that their job is to deal mainly with the smaller, struggling farmers that are the concern of many of their targets. There seems to be little appreciation of the extensive and profound knowledge of the farmers, as some of the officials expressed surprise when faced by it during meetings and workshops. The scope for learning what works locally is thus reduced, because by definition the farmers who are succeeding are not the legitimate concern of the officials. Instead the officials must rely on their academically gained knowledge and the material and target imposed on them by departmental programmes. This has worked in the Green Revolution irrigated areas, but there doesn't seem to be as comprehensive a solution for the rainfed zones.

Using the yearbook as a focus, an annual conference can be held along the lines of the PTW 'Tiruchuli 2001' workshop, where the emphasis will be on sharing information and bringing together local and outside expertise to the benefit of both. Using the idea of welcoming officials detailed in the tank study chapter (§6), the book can be handed over to new officials in a greeting ceremony and introductions made to local farmers as people who know many things about farming. The aim is to foster beneficial relationships between farmers and officials that result in better access for the farmers to technical help and

advice where sought, and an appreciation of the wealth of local agricultural experience on the part of the extension officers. If the system does not provide its own motivating drives for local engagement then it is just possible that this can be done through forming personal relationships in a benign atmosphere.

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